DVD Player

DVP3000K, DVP3005K, DVP3005, DVP3010,DVP3007,DVP3500

Service

Service

Service

DVP3000/51
DVP3000K/13/69/75/93
DVP3005K/03/13/69/75/78/93/94
DVP3005/00/02/04/05/69/78/94
DVP3007/69/94
DVP3010/00/02/04/05
DVP3500/37

Service Manual

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CLASS 1
LASER PRODUCT

Published by TCL-KC 0501 Service Audio Printed in The Netherlands Subject to modification

GB 3139 785 30952

Version 1.2

PHILIPS

Technical Specifications

TV standard	(PAL/50Hz)	(NTSC/60Hz)
Number of lines	625	525
Playback	Multistandard	(PAL/NTSC)

Video performance

Video DAC	12 bit, 108m H
PbPr:	0.7Vpp —— 75ohm
Video output	1Vpp —— 75ohm

Video format

Digital Compression	MPEG 2 for DVD, SVD	
	MPEG 1 for VCD	
DVD	50Hz	60Hz
Horiz. resolution	720 pixels	720 pixels
Vertical resolution	576 lines	480 lines
VCD	50Hz	60Hz
Horiz. resolution	352 pixels	352 pixels
Vertical resolution	288 lines	240 lines

Audio format

Digital	MPEG/AC-3/ PCM	Compressed Digital 16, 20, 24 bits fs, 44.1, 48, 96kHz
	MP3 (ISO 9660)	96, 112, 128, 256kbps & variable bit rate fs, 32, 44.1, 48 kHz

Analogue Sound Stereo
Dolby surround-compatible downmix from Dolby Digital multi-channel sound

Audio performance

DA converter	24bits, 192KHz	
DVD	fs 96kHz	4Hz——44kHz
	fs 48kHz	4Hz——22kHz
SVCD	fs 48kHz	4Hz——22kHz
	fs 44.1kHz	4Hz——20kHz
CD/VCD	fs 44.1kHz	4Hz——20kHz
Signal-Noise (1kHz)		>95dB
Dynamic Range (1kHz)		>85dB
Cross talk (1kHz)		>90dB
Distortion/Noise (1kHz)		>80dB
MPEG MP3	MPEG Audio L3	
Audio L+R output:	1.0~2.0 Vpp into 10K ohm	

Connections

YpbPr	Cinch 3x
Video output	Cinch (yellow)
Audio L+R output	Cinch (white/red)
Digital output	1 coaxial IEC 60958 for CDDA/LPCM IEC 61937 for MPEG 1/2, Dolby Digital

Cabinet

Dimensions (w X h X d)	360 X 43 X 265mm
Weight	Approximately 2.0 kg

Power consumption

Power supply	230V for 00/02/03/04/05/13/69/75/93 120~230V for /78
Power consumption in standby mode	< 0.8W
Power consumption	<10W

Specifications subjects to change without prior notice.

Safety instructions, Warnings, Notes

Safety instructions

1. General safety

Safety regulations require that during a repair:

. Connect the unit to the mains via an isolation transformer.

. Replace safety components indicated by the symbol ⚠, only by components identical to the original ones. Any other component substitution (other than original type) may increase risk of fire or electrical shock hazard.

Safety regulations require that after a repair, you must return the unit in its original condition. Pay, in particular, attention to the following points:

. Route the wires/cables correctly, and fix them with the mounted cable clamps.

. Check the insulation of the mains lead for external damage.

. Check the electrical DC resistance between the mains plug and the secondary side:

1) Unplug the mains cord, and connect a wire between the two pins of the mains plug.
2) Set the mains switch the "on" position (keep the mains cord unplug).
3) Measure the resistance value between the mains plug and the front panel, controls, and chassis bottom.
4) Repair or correct unit when the resistance measurement is less than 1MΩ.
5) Verify this, before you return the unit to the customer/user (ref. UL-standard no. 1492).
6) Switch the unit "off", and remove the wire between the two pins of the mains plug.

2 Laser safety

This unit employs a laser. Only qualified service personnel may remove the cover, or attempt to service this device (due to possible eye injury).

Laser device unit

Type : Semiconductor laser GaAlAs
Wavelength : 650nm (DVD)
: 780nm (VCD/CD)
Output power : 7mW (DVD)
: 10mW (DVD/CD)
Beam divergence: 60 degree

Note: Use of controls or adjustments or performance of procedure other than those specified herein, may result in hazardous radiation exposure. Avoid direct exposure to beam.

Warnings

1.General

. All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handing during repair can reduce life drastically. Make sure that, during repair, you are at the same potential as the mass of the set by a wristband with resistance. Keep components and tools at this same potential. Available ESD protection equipment:

1) Complete kit ESD3 (small tablemat, wristband, connection box, extension cable and earth cable) 4822 310 10671.

2) Wristband tester 4822 344 13999.

. Be careful during measurements in the live voltage section. The primary side of the power supply , including the heat sink, carries live mains voltage when you connect the player to the mains (even when the player is "off"!). It is possible to touch copper tracks and/or components in this unshielded primary area, when you service the player. Service personnel must take precautions to prevent touching this area or components in this area. A "lighting stroke" and a stripe-marked printing on the printed wiring board, indicate the primary side of the power supply.

. Never replace modules, or components, while the unit is "on".

2. Laser

. The use of optical instruments with this product, will increase eye hazard.

. Only qualified service personnel may remove the cover or attempt to service this device, due to possible eye injury.

. Repair handing should take place as much as possible with a disc loaded inside the player.

. Text below is placed inside the unit, on the laser cover shield:

CAUTION: VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO BEAM.

Notes: Manufactured under licence from Dolby Laboratories. The double-D symbol is trademarks of Dolby Laboratories, Inc. All rights reserved.

Warnings, Notes

Lead-Free requirement for service

IDENTIFICATION:

Regardless of special logo (not always indicated)

One must treat all sets from 1.1.2005 onwards, according next rules.

Important note: In fact also products a little older can also be treated in this way as long as you avoid mixing solder-alloys (leaded/ lead-free). So best to always use SAC305 and the higher temperatures belong to this.

Due to lead-free technology some rules have to be respected by the workshop during a repair:

- Use only lead-free solder alloy Philips SAC305 with order code 0622 149 00106. If lead-free solder-paste is required, please contact the manufacturer of your solder-equipment. In general use of solder-paste within workshops should be avoided because paste is not easy to store and to handle.
- Use only adequate solder tools applicable for lead-free solder alloy. The solder tool must be able
  - To reach at least a solder-temperature of 400°C,
  - To stabilize the adjusted temperature at the solder-tip
  - To exchange solder-tips for different applications.
- Adjust your solder tool so that a temperature around 360°C – 380°C is reached and stabilized at the solder joint. Heating-time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400°C otherwise wear-out of tips will rise drastically and flux-fluid will be destroyed. To avoid wear-out of tips switch off un-used equipment, or reduce heat.
- Mix of lead-free solder alloy / parts with leaded solder alloy / parts is possible but PHILIPS recommends strongly to avoid mixed solder alloy types (leaded and lead-free). If one cannot avoid, clean carefully the solder-joint from old solder alloy and re-solder with new solder alloy (SAC305).
- Use only original spare-parts listed in the Service-Manuals. Not listed standard-material (commodities) has to be purchased at external companies.
- Special information for BGA-ICs:
  - always use the 12nc-recognizable soldering temperature profile of the specific BGA (for de-soldering always use highest lead-free temperature profile, in case of doubt)
  - lead free BGA-ICs will be delivered in so-called 'dry-packaging' (sealed pack including a silica gel pack) to protect the IC against moisture. After opening, dependent of MSL-level seen on indicator-label in the bag, the BGA-IC possibly still has to be baked dry. This will be communicated via AYS-website. Do not re-use BGAs at all.
- For sets produced before 1.1.2005, containing leaded soldering-tin and components, all needed spare-parts will be available till the end of the service-period. For repair of such sets nothing changes.
- On our website:
  www.atyourservice.ce.philips.com

You find more information to:

BGA-de-/soldering (+ baking instructions)
Heating-profiles of BGAs and other ICs used in Philips-sets

You will find this and more technical information within the "magazine", chapter "workshop news".

For additional questions please contact your local repair-helpdesk.

Mechanical and Dismantling Instructions

Dismantling Instruction

The following guidelines show how to dismantle the player.
Step1: Remove 5 screws around the Top Cover. And remove it (Figure 1)
Step2: If it is necessary to dismantle Loader or Front Panel, It should be remove the front door assembly first. (Figure 2)
If the trace can't open in normal way, you can make it by pushing the guider manually using the slot below the bottom chassis with a tool. (Figure 3)
Note: Make sure to operate gently otherwise the guider would be damaged.

Figure 1

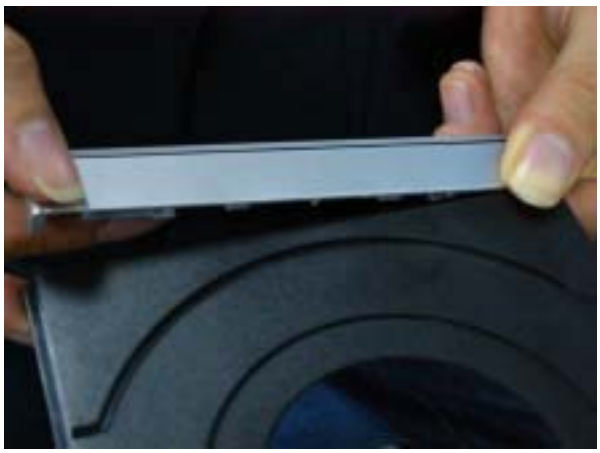


Figure 2

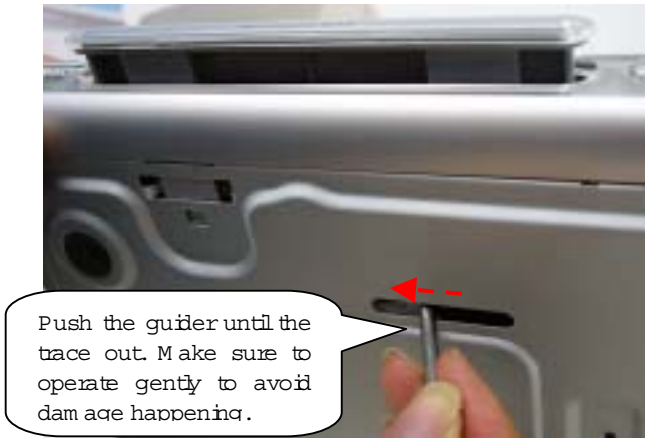


Figure 3

Step 3 : Dismantling Loader, First, disconnect the 3 connectors aiming in the figure, and then remove the 2 screws at both sides of the bader, (Figure 4)

Step 4 : Dismantling Front Panel: disconnect the 2 connectors aiming in the figure then Release the snaps on the both sides of Front Panel and gently pull the Panel out from the set. (Figure 5 & 6)

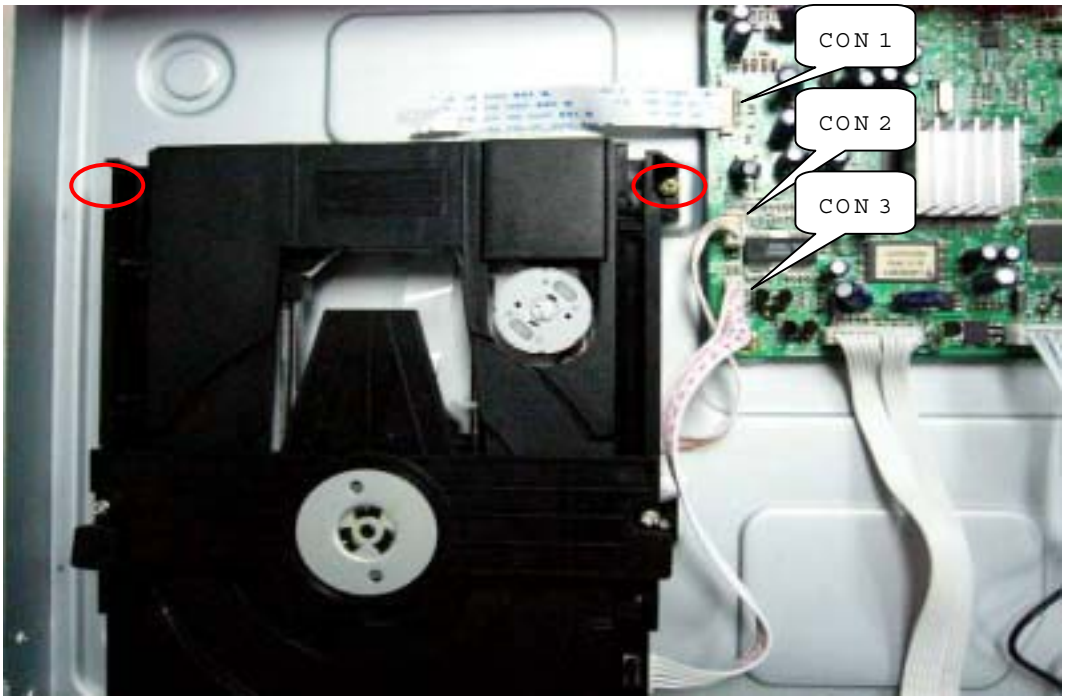


Figure 4

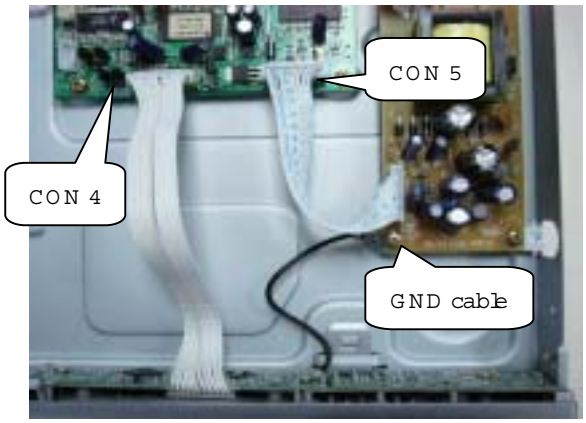


Figure 5

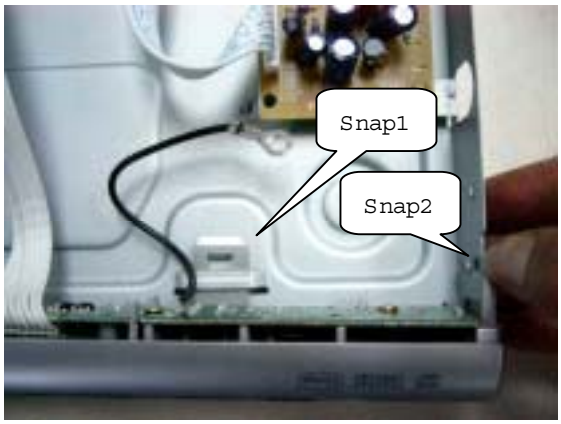


Figure 6

Step6: Dismantling Main Board, first disconnect the connector, and then remove the relative screws, (Figure 7)

Step7: Remove the 3 screws on power board to dismantle the power board. (Figure8)

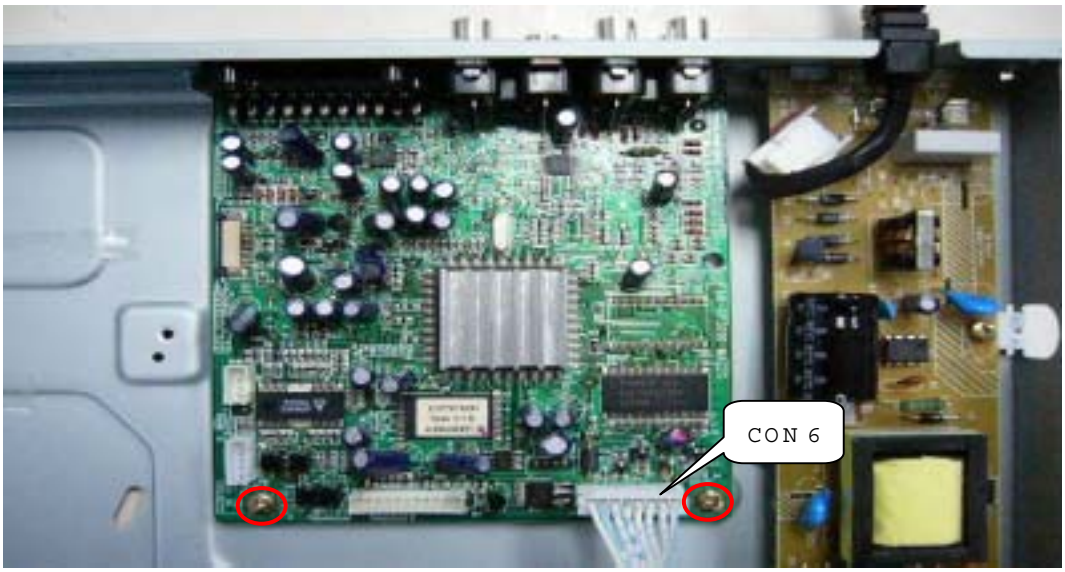


Figure 7

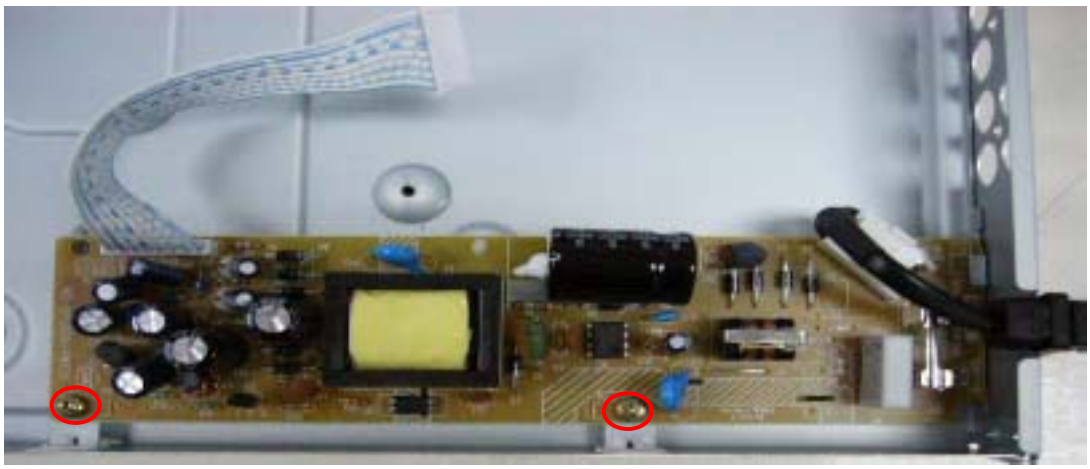


Figure 8

ATTENTION OF REPAIRING

Make sure adding silicon glue to fix the capacitor C4 after repairing, (Avoid the hazard of C4 touching the Top Cover.)

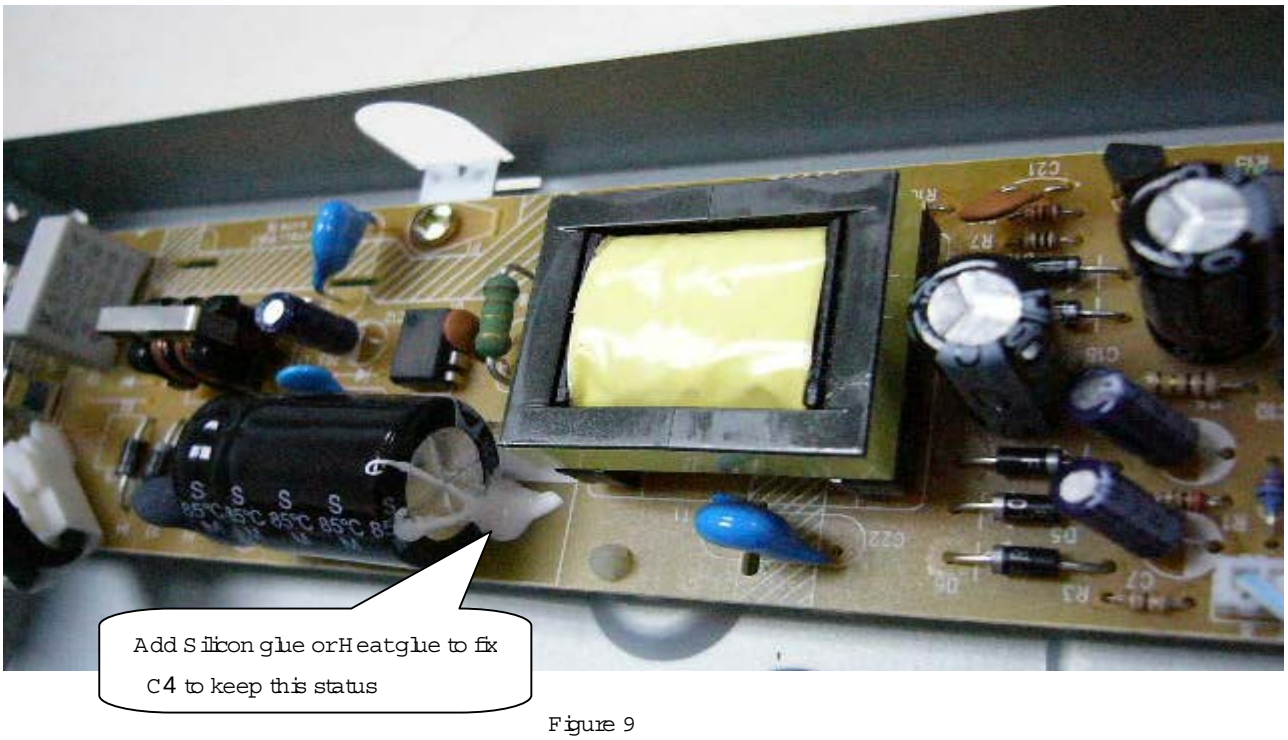


Figure 9

Software upgrade

A. Preparation to upgrade software

1) Start the CD Burning software and create a new CD project (Data Disc) with the following setting:

   Label: DVP3XXX

   File System: DVP3000K_13.BIN (for DVP3000K/13/75)
   DVP3000K_69.BIN (for DVP3000K/69)
   DVP3000K_93.BIN (for DVP3000K/93)
   DVP3005_00.BIN (for DVP3005/00/05)
   DVP3005_02.BIN (for DVP3005/02)
   DVP3005_04.BIN (for DVP3005/04)
   DVP3005_78.BIN (for DVP3005/78)
   DVP3005K_78.BIN(.for DVP3005k/78)
   DVP3005K_93.BIN(.for DVP3005k/93)
   DVP3010_00.BIN (for DVP3010/00/05)
   DVP3010_02.BIN (for DVP3010/02/04)
   DVP3005K_69.BIN (for DVP3005K/03/13/69/75)

   Label: _____ (No need the label name)

   File System: DVP3000_51.BIN (for DVP3000/51)
   DVP3005_69.BIN (for DVP3005/69)
   DVP3500_37.BIN (for DVP3500/37)
   DVP3005_94.BIN (for DVP3005/94)
   DVP3007_94.BIN (for DVP3007/69/94)

Note: It is required capital letter for the Label name & the File System name.

2) Burn the data onto a blank CDR

B. Procedure for software upgrade:

1) Power up the set and insert the prepared Upgrade CDR.
2) The set will starts reading disc & response with the following display TV screen:
   Upgrade File DETECTED
   Upgrade?
   Press Play TO START
3) Press <OK> button to confirm, then screen will display :
   Files coping…
   UPGRADING…
3) The upgraded disc will automatically out when files coping complete, then take out the disc.
4) About 1 minute later, the trace will automatically close when upgrading complete.

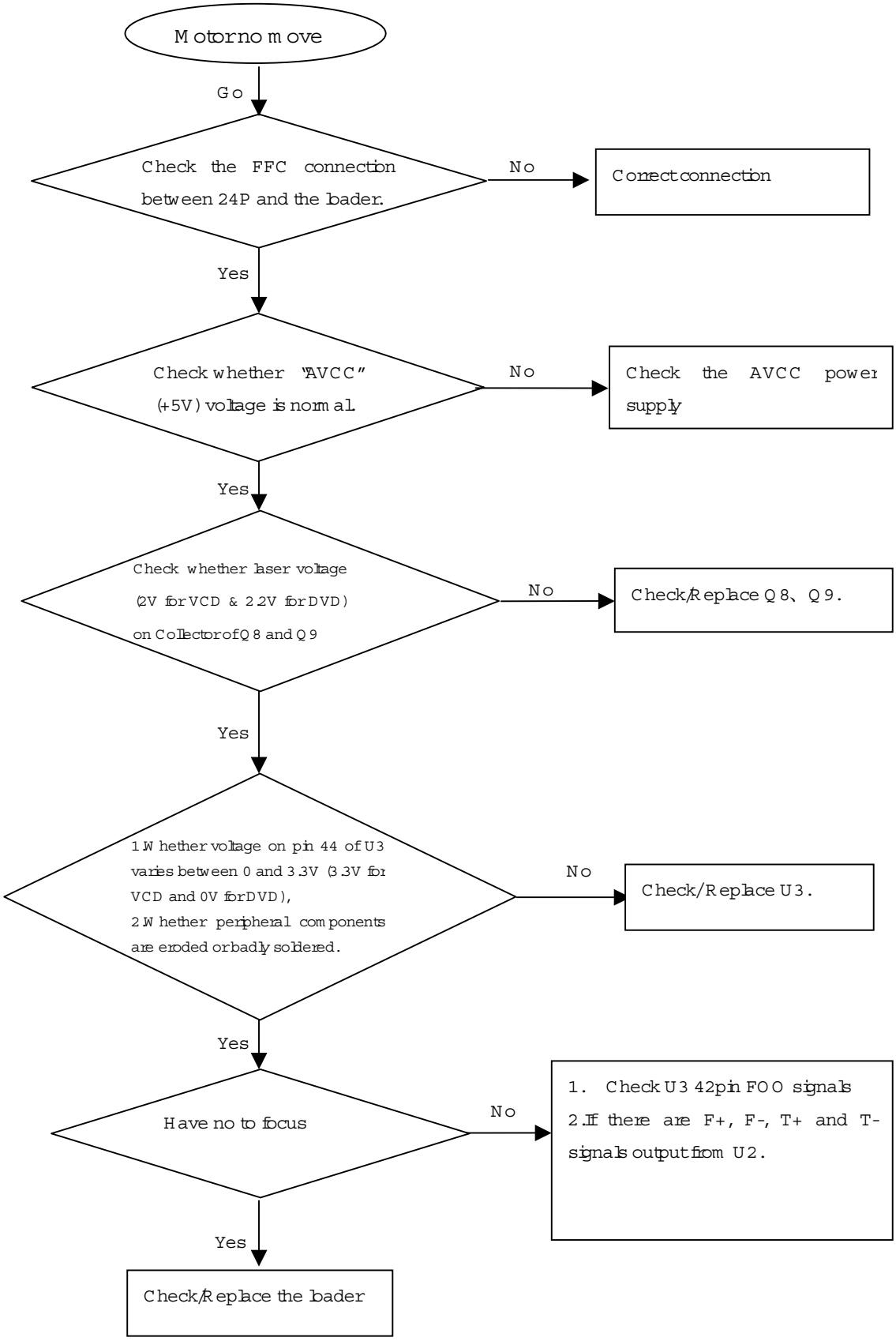
C. Read out the software versions to confirm upgrading

1) Power up the set and press <system menu> button on the remote control.
2) Press <1><3><7><9> button.
   The software version and other information are display on the TV screen as follows:

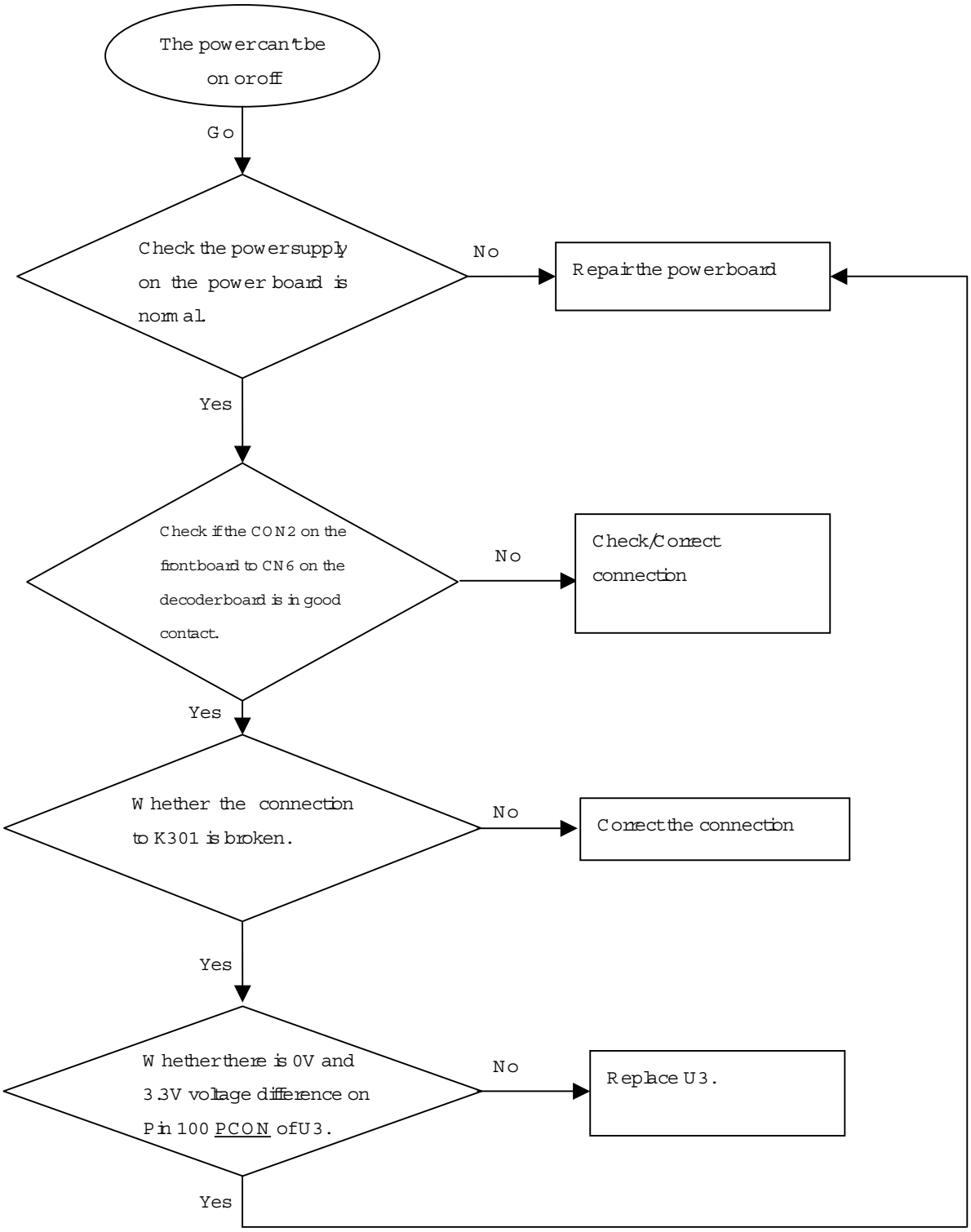
Version	XX.XX.XX.XX (Main version)
SUB-VER	XX.XX.XX.XX (software version of application software)
8032	XX.XX.XX.XX
Servo	XX.XX.XX.XX (software version of Servo)
RISC	XX.XX.XX.XX
DSP	XX.XX.XX.XX
Region Code	X

Caution: The set must not be power off during upgrading, in that case the decoder board will be damaged entirely.

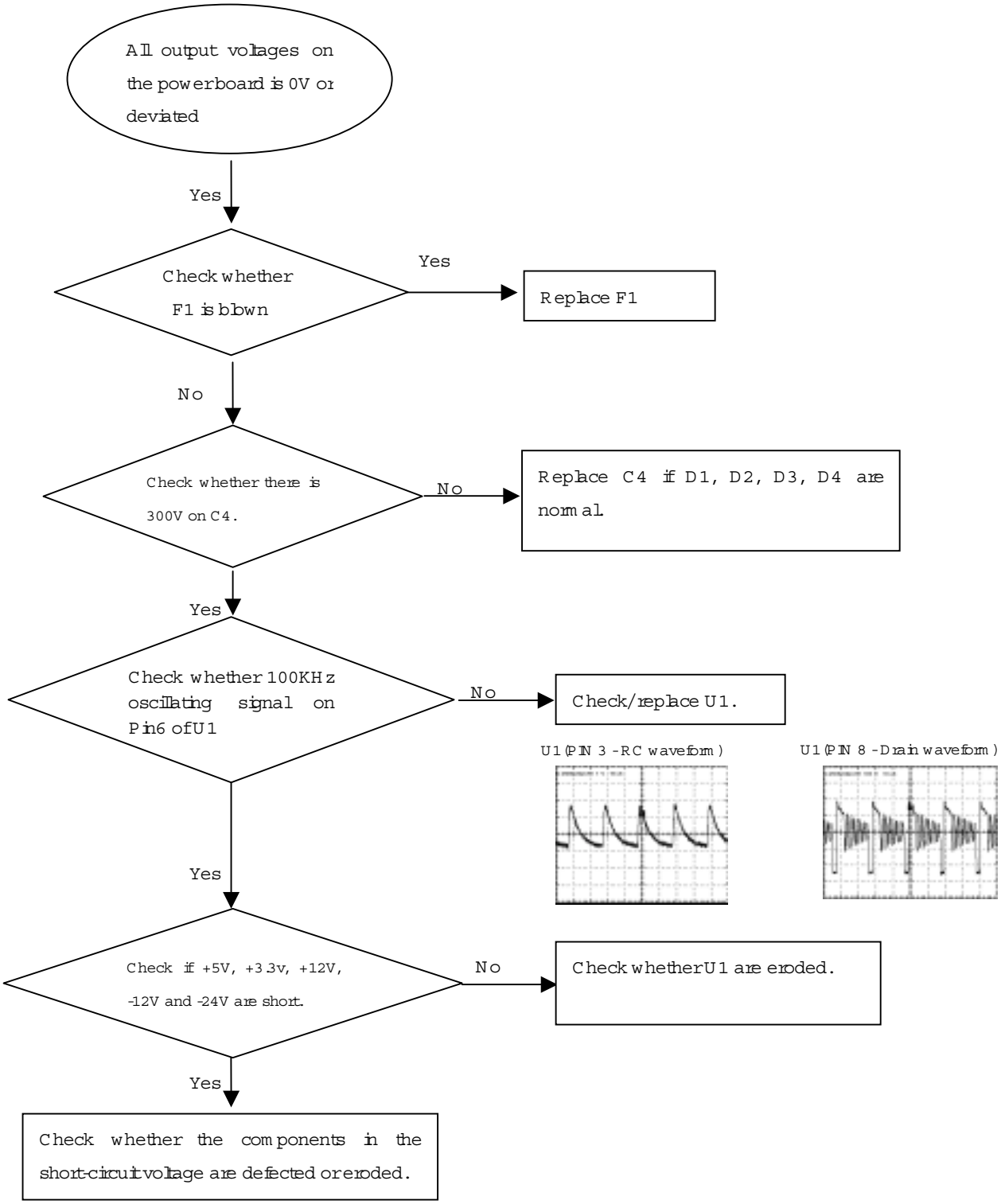
Spindle motor does not move


Motor no move
Go
Check the FFC connection between 24P and the bader.
No
Correct connection
Yes
Check whether "AVCC" (+5V) voltage is normal.
No
Check the AVCC power supply
Yes
Check whether laser voltage (2V for VCD & 2.2V for DVD) on Collector of Q8 and Q9
No
Check/Replace Q8、Q9.
Yes
1.Whether voltage on pin 44 of U3 varies between 0 and 3.3V (3.3V for VCD and 0V for DVD),
2.Whether peripheral components are eroded or badly soldered.
No
Check/Replace U3.
Yes
Have no to focus
No
1. Check U3 42pin FOO signals
2.If there are F+, F-, T+ and T- signals output from U2.
Yes
Check/Replace the bader

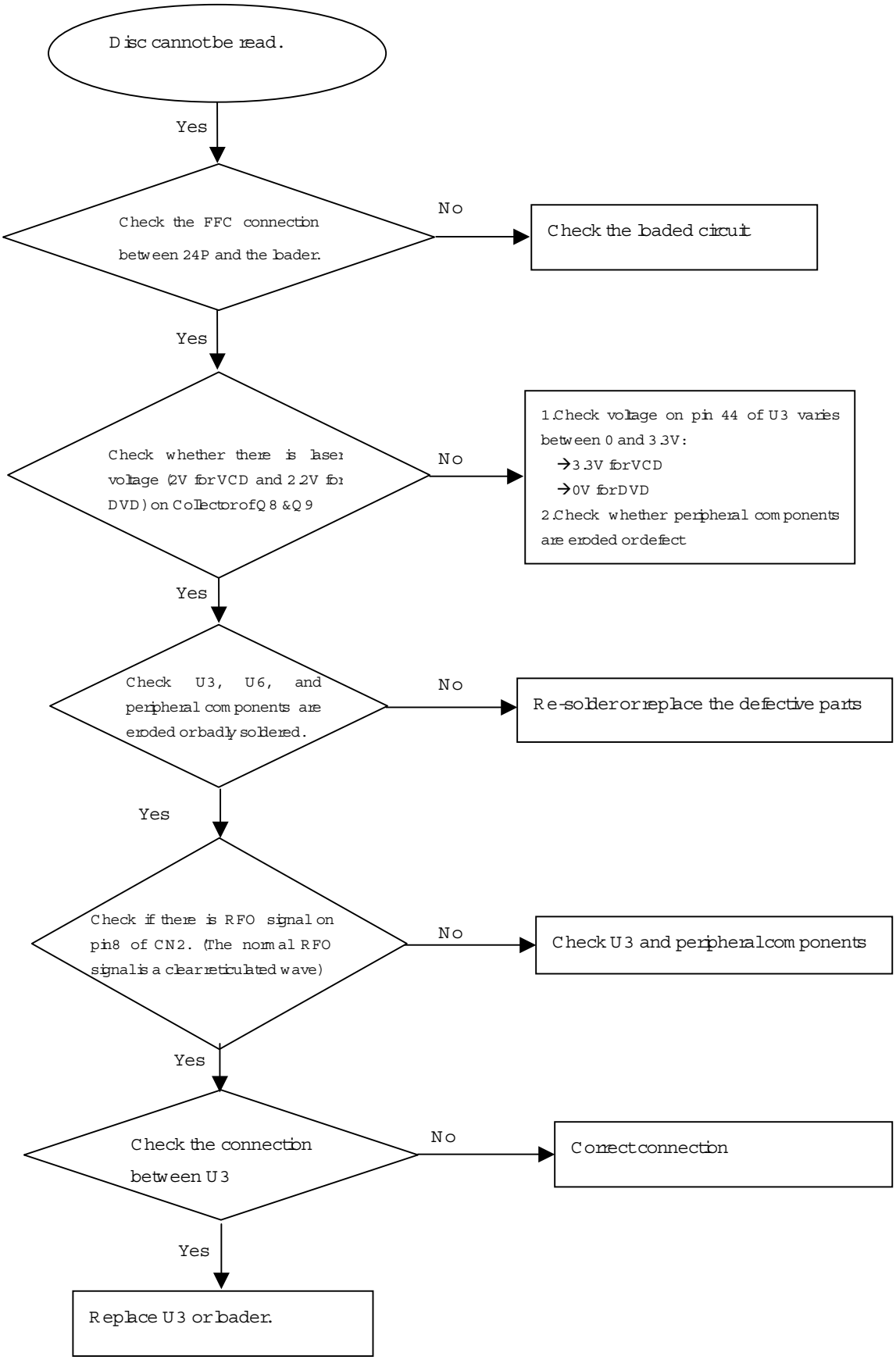
The power can not be on or off


The power can't be on or off
Go
Check the power supply on the power board is normal.
No
Repair the power board
Yes
Check if the CON2 on the front board to CN6 on the decoder board is in good contact.
No
Check/Correct connection
Yes
Whether the connection to K301 is broken.
No
Correct the connection
Yes
Whether there is 0V and 3.3V voltage difference on Pin 100 PCON of U3.
No
Replace U3.
Yes

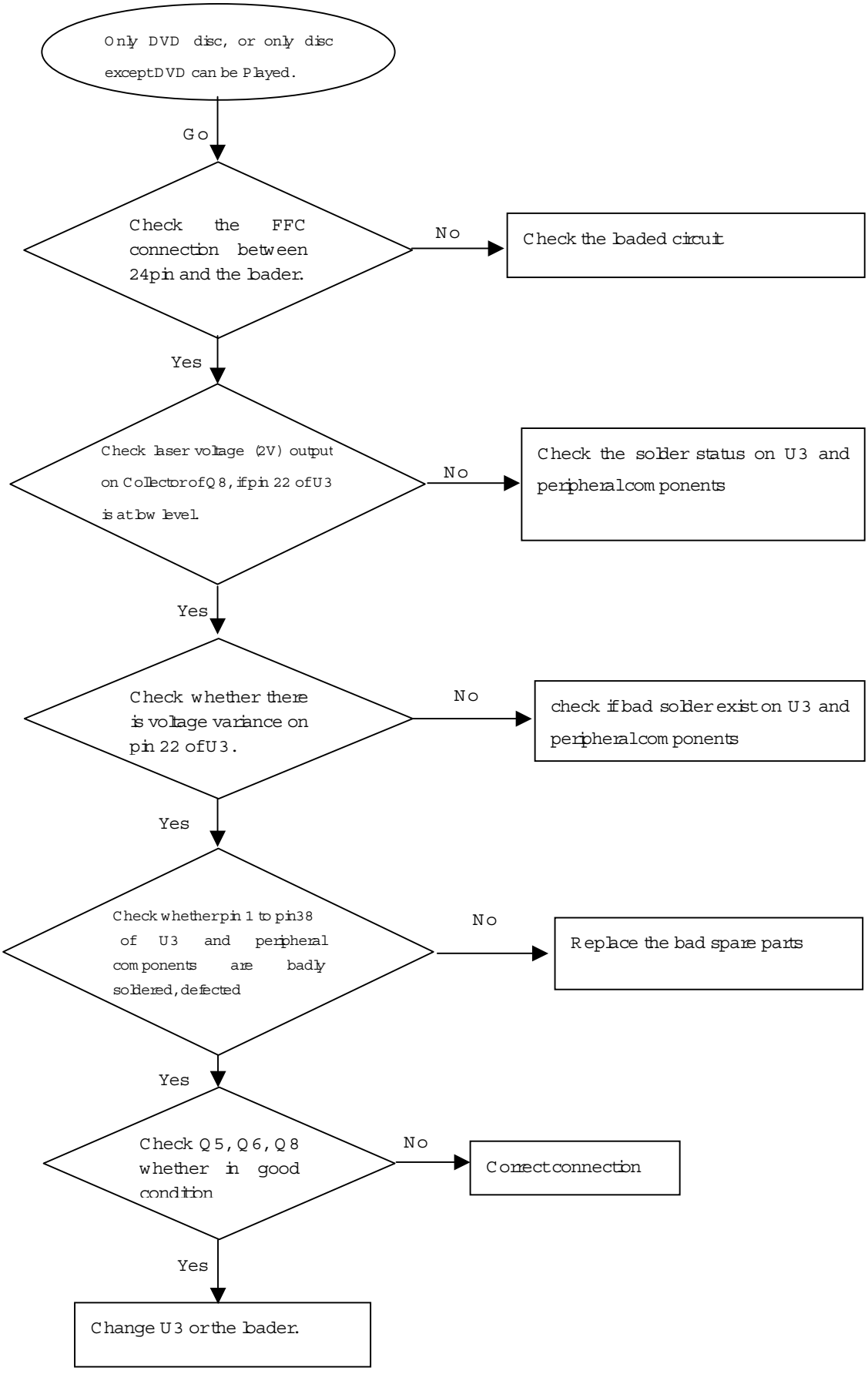
All output voltages on the power board is 0V or deviated.


All output voltages on the power board is 0V or deviated
Yes
Check whether F1 is blown
Yes
Replace F1
No
Check whether there is 300V on C4.
No
Replace C4 if D1, D2, D3, D4 are normal.
Yes
Check whether 100KHz oscillating signal on Pin6 of U1
No
Check/replace U1.
U1(PIN 3 -RC waveform)
U1(PIN 8 -Drain waveform)
Yes
Check if +5V, +3.3v, +12V, -12V and -24V are short.
No
Check whether U1 are eroded.
Yes
Check whether the components in the short-circuit voltage are defected or eroded.

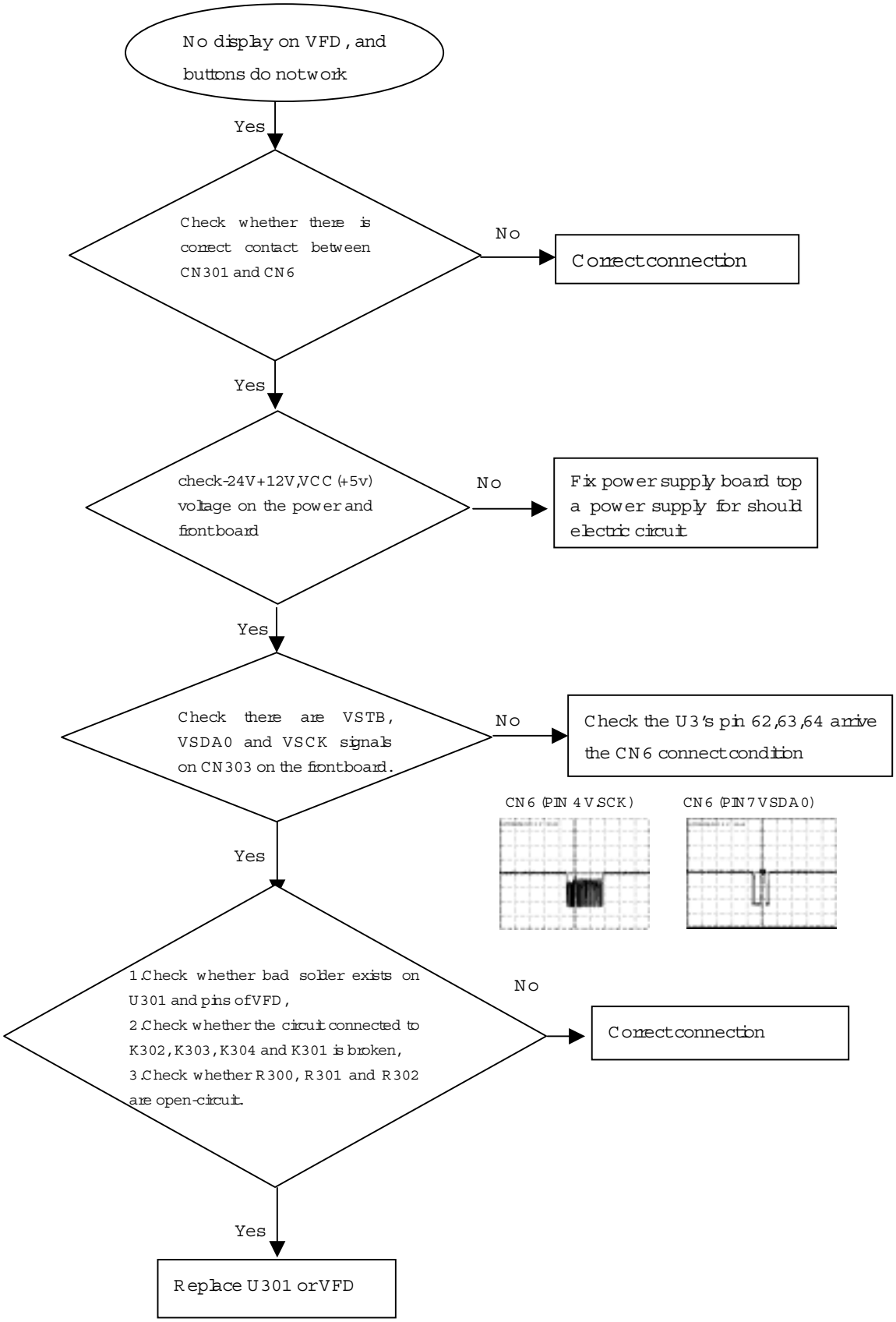
Disc cannot be read.


Disc cannot be read.
Yes
Check the FFC connection between 24P and the bader.
No
Check the baded circuit
Yes
Check whether there is laser voltage (2V for VCD and 2.2V for DVD) on Collector of Q8 &Q9
No
1.Check voltage on pin 44 of U3 varies between 0 and 3.3V:
→3.3V for VCD
→0V for DVD
2.Check whether peripheral components are eroded or defect
Yes
Check U3, U6, and peripheral components are eroded or badly soldered.
No
Re-solder or replace the defective parts
Yes
Check if there is RFO signal on pin8 of CN2. (The normal RFO signal is a clear reticulated wave)
No
Check U3 and peripheral components
Yes
Check the connection between U3
No
Correct connection
Yes
Replace U3 or bader.

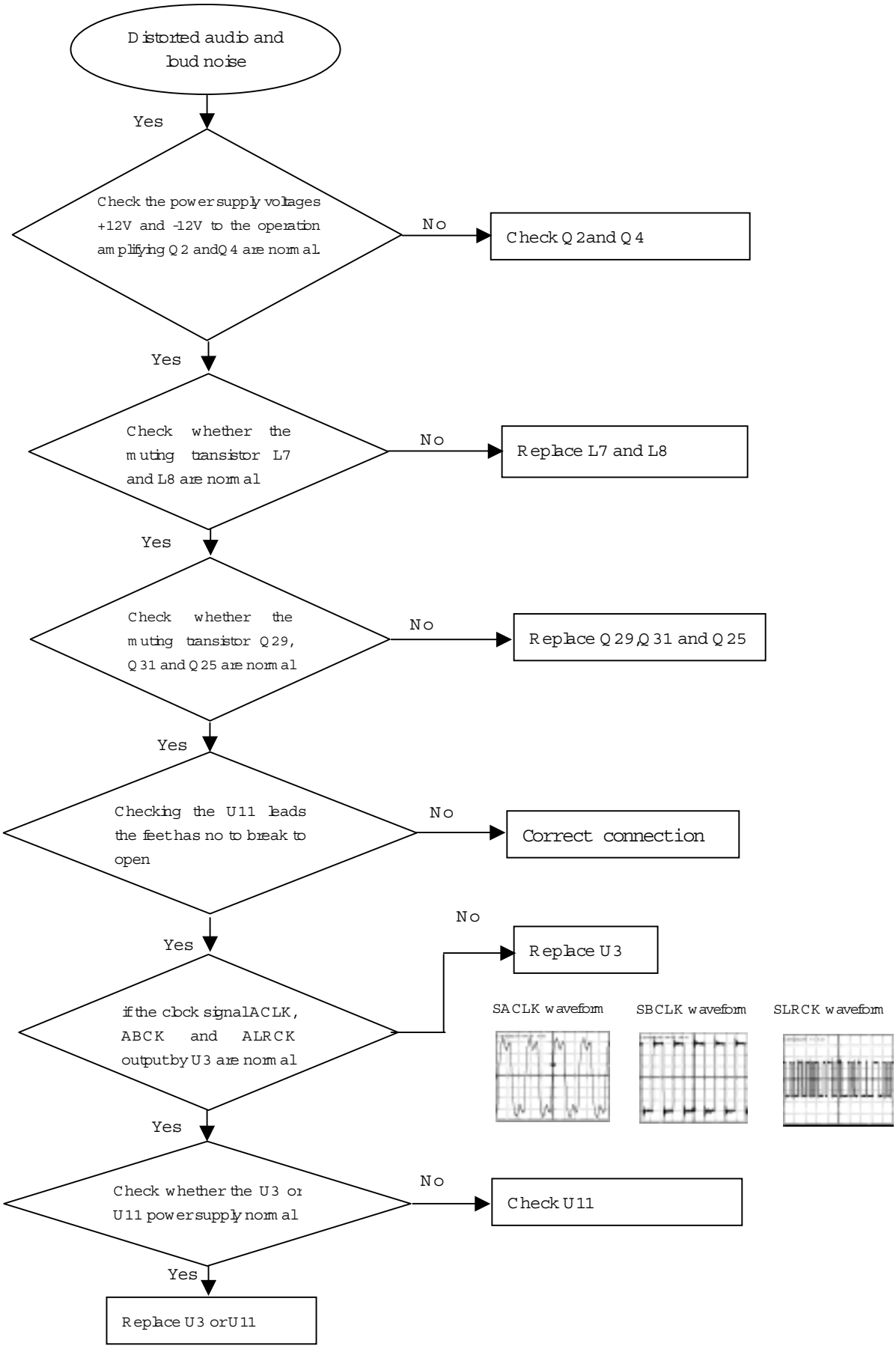
Only DVD disc or only disc except DVD can be played


Only DVD disc, or only disc except DVD can be Played.
Go
Check the FFC connection between 24pin and the bader.
No
Check the baded circuit
Yes
Check laser voltage (2V) output on Collector of Q8, if pin 22 of U3 is at low level.
No
Check the solder status on U3 and peripheral components
Yes
Check whether there is voltage variance on pin 22 of U3.
No
check if bad solder exist on U3 and peripheral components
Yes
Check whether pin 1 to pin38 of U3 and peripheral components are badly soldered, defected
No
Replace the bad spare parts
Yes
Check Q5, Q6, Q8 whether in good condition
No
Correct connection
Yes
Change U3 or the bader.

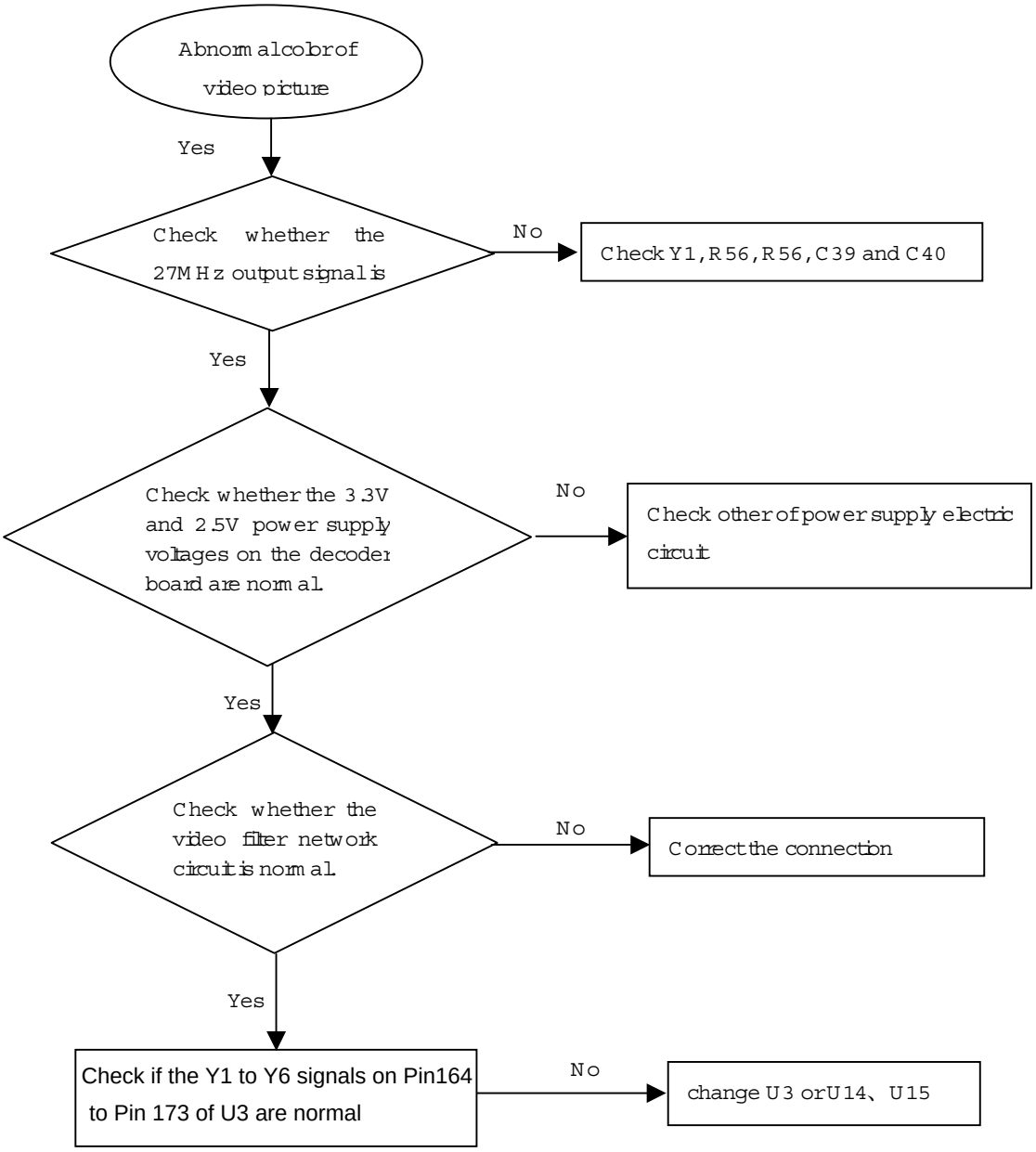
No display on VFD, and buttons do not work


No display on VFD, and buttons do not work
Yes
Check whether there is correct contact between CN301 and CN6
No
Correct connection
Yes
check -24V +12V,VCC (+5v) voltage on the power and front board
No
Fix power supply board top a power supply for should electric circuit
Yes
Check there are VSTB, VSDA0 and VSCK signals on CN303 on the front board.
No
Check the U3's pin 62,63,64 arrive the CN6 connect condition
CN6 (PIN 4 VSCK)
CN6 (PIN 7 VSDA0)
Yes
1.Check whether bad solder exists on U301 and pins of VFD,
2.Check whether the circuit connected to K302, K303, K304 and K301 is broken,
3.Check whether R300, R301 and R302 are open-circuit.
No
Correct connection
Yes
Replace U301 or VFD

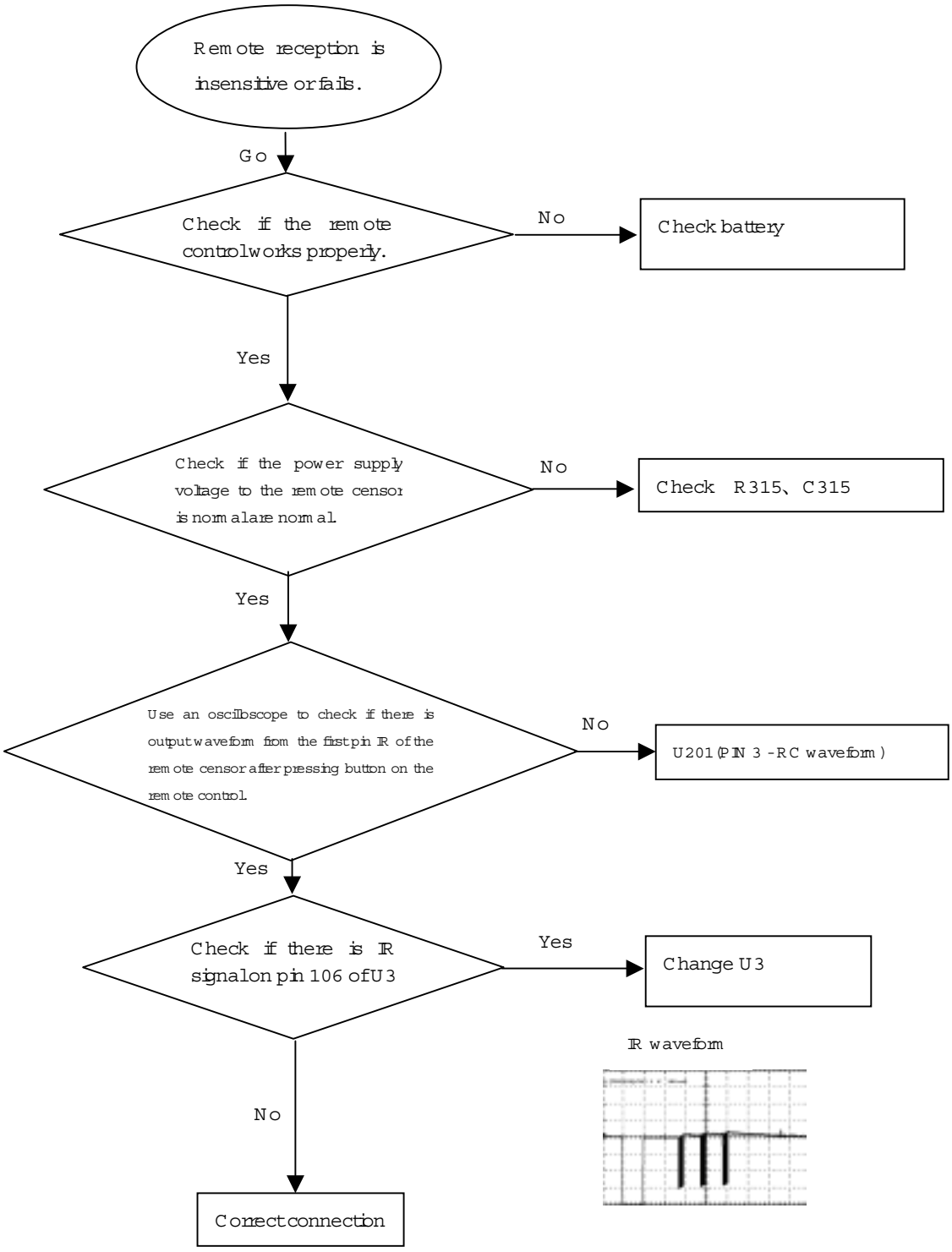
Distorted audio and loud noise


Distorted audio and loud noise
Yes
Check the power supply voltages +12V and -12V to the operation amplifying Q2 and Q4 are normal.
No
Check Q2 and Q4
Yes
Check whether the muting transistor L7 and L8 are normal
No
Replace L7 and L8
Yes
Check whether the muting transistor Q29, Q31 and Q25 are normal
No
Replace Q29, Q31 and Q25
Yes
Checking the U11 leads the feet has no to break to open
No
Correct connection
Yes
if the clock signal ACLK, ABCK and ALRCK output by U3 are normal
No
Replace U3
SACLK waveform
SBCLK waveform
SLRCK waveform
Yes
Check whether the U3 or U11 power supply normal
No
Check U11
Yes
Replace U3 or U11

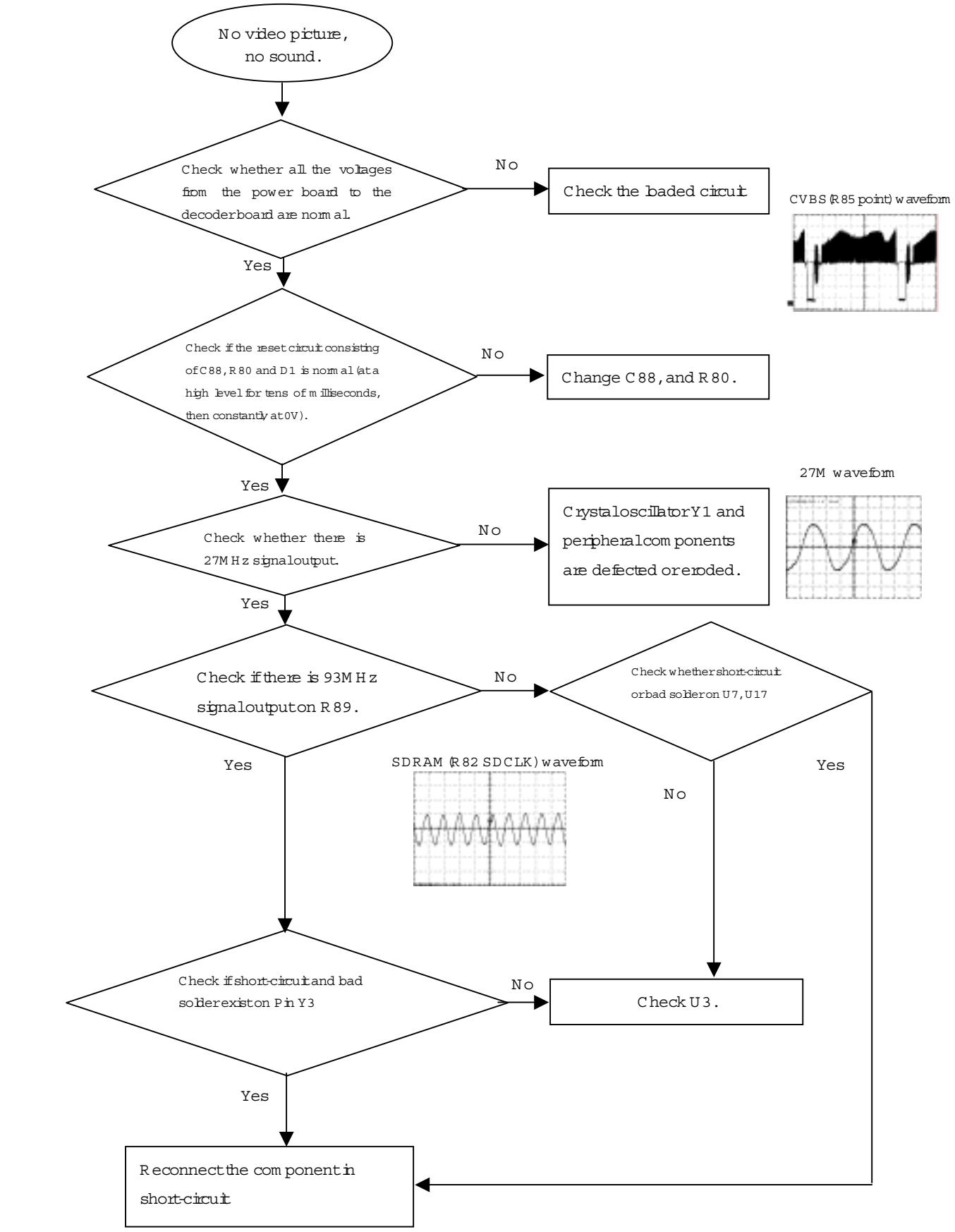
Abnormal color of video picture


Abnormal color of video picture
Yes
Check whether the 27MHz output signal is
No
Check Y1, R56, R56, C39 and C40
Yes
Check whether the 3.3V and 2.5V power supply voltages on the decoder board are normal.
No
Check other of power supply electric circuit
Yes
Check whether the video filter network circuit is normal.
No
Connect the connection
Yes
Check if the Y1 to Y6 signals on Pin164 to Pin 173 of U3 are normal
No
change U3 or U14、U15

Remote reception is insensitive or fails.

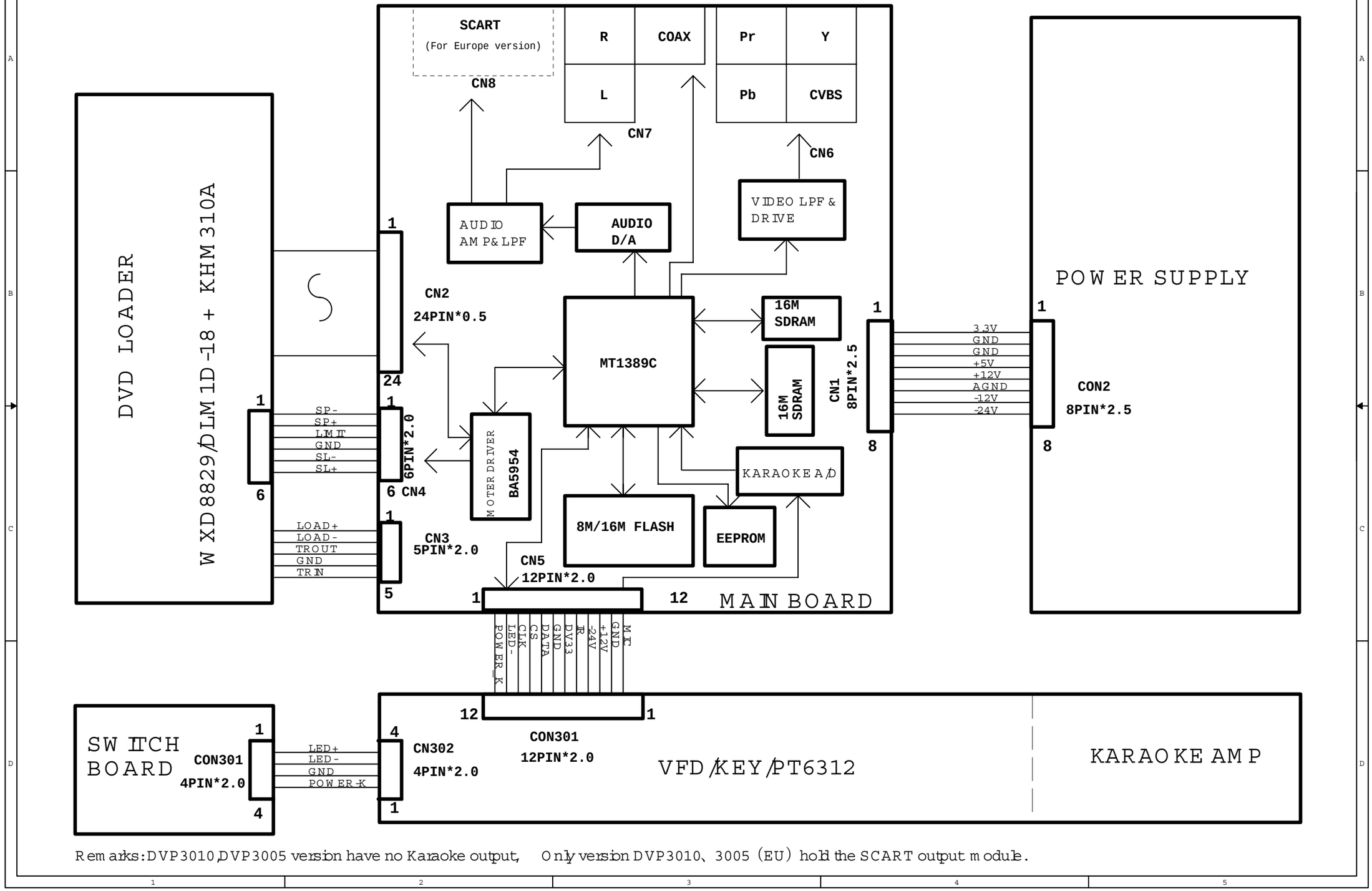

Remote reception is insensitive or fails.
Go
Check if the remote control works properly.
No
Check battery
Yes
Check if the power supply voltage to the remote censor is normal are normal.
No
Check R315、C315
Yes
Use an oscilbscope to check if there is output waveform from the first pin IR of the remote censor after pressing button on the remote control.
No
U201(PIN 3 -RC waveform)
Yes
Check if there is IR signal on pin 106 of U3
Yes
Change U3
IR waveform
No
Correct connection

No video picture, no sound.


No video picture, no sound.
Check whether all the voltages from the power board to the decoderboard are normal.
No
Check the baded circuit
CVBS (R85 point) waveform
Yes
Check if the reset circuit consisting of C88, R80 and D1 is normal (at a high level for tens of milliseconds, then constantly at 0V).
No
Change C88, and R80.
Yes
27M waveform
Check whether there is 27MHz signaloutput.
No
Crystaloscillator Y1 and peripheralcomponents are defected oreroded.
Yes
Check if there is 93MHz signaloutputon R89.
No
Check whether short-circuit orbad solderon U7, U17
Yes
SDRAM (R82 SDCLK) waveform
Yes
No
Check if short-circuit and bad solderexiston Pin Y3
No
Check U3.
Yes
Reconnect the component in short-circuit

5-1

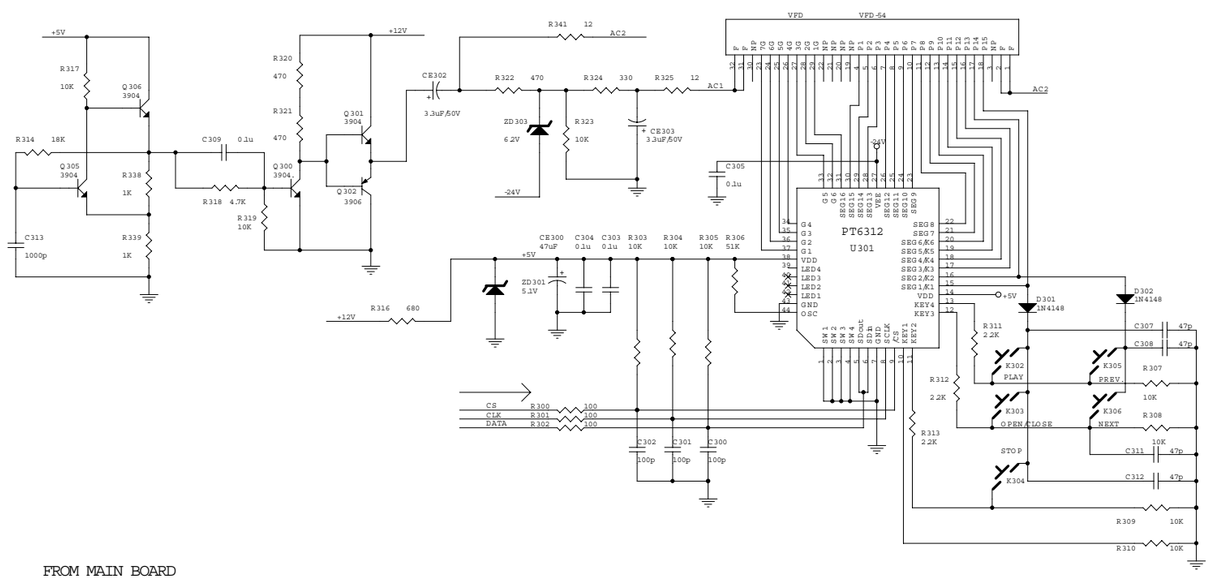
DVP3XXX/XX Wiring & Block Diagram

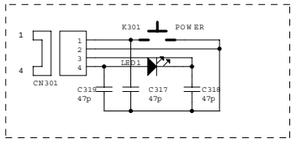


Remarks: DVP3010, DVP3005 version have no Karaoke output, Only version DVP3010、3005 (EU) hold the SCART output module.

6-3

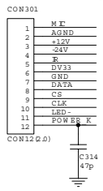
FRONT BOARD for DVP301X/XX ,DVP301XK/XX ,DVP3005/XX ,DVP3005K/XX ,DVP3007/XX

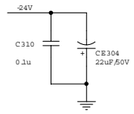


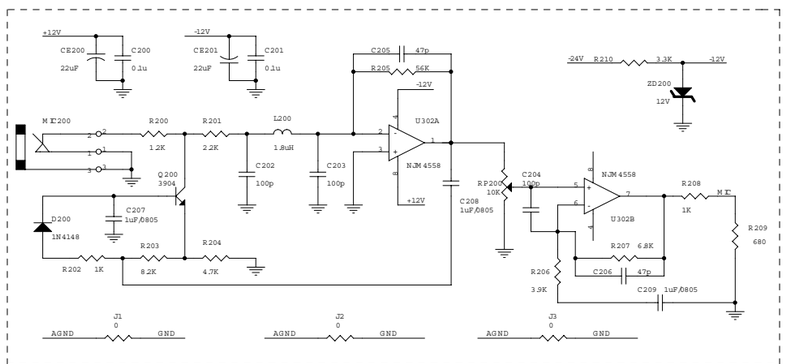


SWITCH BOARD

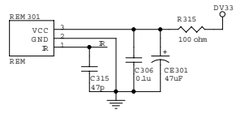
FROM MAIN BOARD

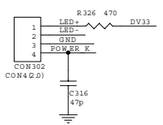






When have no karaoke, this inside of circle a piece is "OPEN"

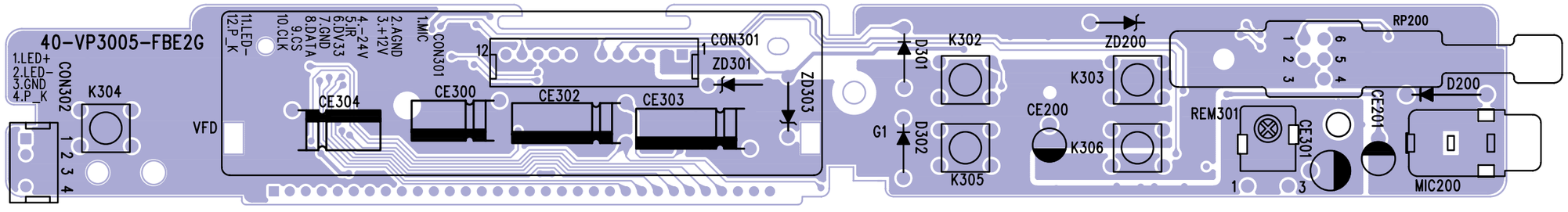




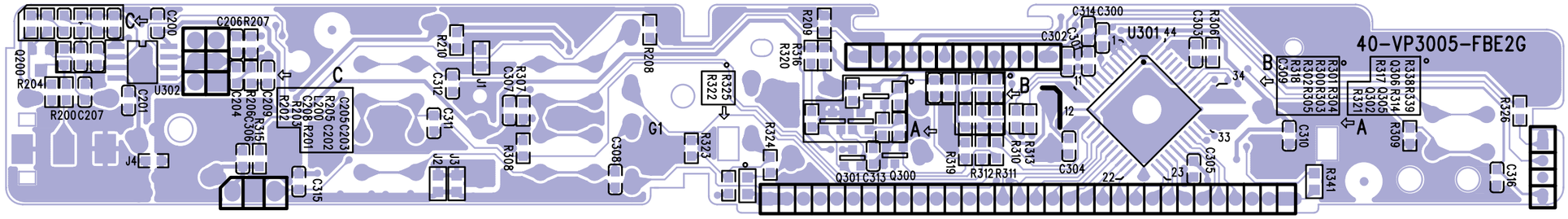
R200	E1
R201	E2
R202	E1
R203	E1
R204	E2
R205	E2
R206	E2
R207	E3
R208	E3
R209	E3
R210	E3
R300	C2
R301	C2
R302	C2
R303	B3
R304	B3
R305	B3
R306	B3
R307	B4
R308	C4
R309	C4
R310	C4
R311	B3
R312	B3
R313	C3
R314	B1
R315	D5
R316	B2
R317	A1
R318	B1
R319	B2
R320	A2
R321	A2
R322	A2
R323	A2
R324	A2
R325	A3
R326	E4
R338	B1
R339	B1
REM301	D4
RP200	E2
C200	E1
C201	E2
C202	E2
C203	E2
C204	E2
C205	E2
C206	E3
C207	E1
C208	E2
C209	F3
C300	C3
C301	C3
C302	C3
C303	B3
C304	B2
C305	B3
C306	D4
C307	B4
C308	B4
C309	B1
C310	D2
C311	C4
C312	C4
C313	B1
C314	D1
C315	D4
C316	E4
C317	A5
C318	A5
C319	A5
CE200	E1
CE201	E2
CE300	B2
CE301	D4
CE302	A2
CE303	A3
CE304	D2
CON301	C1
CON302	E4
J1	F1
J2	F2
J3	F2
LED1	A5
L200	E2
Q200	E1
Q300	B2
Q301	B2
Q302	B2
Q305	B1
Q306	A1
D200	E1
D301	B4
D302	B4
ZD200	E3
ZD301	B2
ZD303	A2
U302A	E2
U302B	E3
MIC200	E1
K301	A5
K302	B4
K303	C4
K304	C4
K305	B4
K306	C4
U301	B3
VFD	A3

6-4

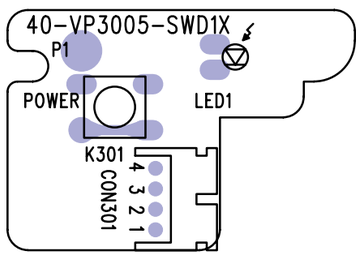
Front Board Top Side



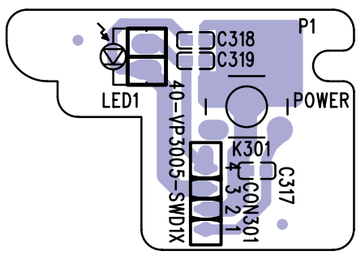
Front Board Bottom Side



Switch Board Top Side

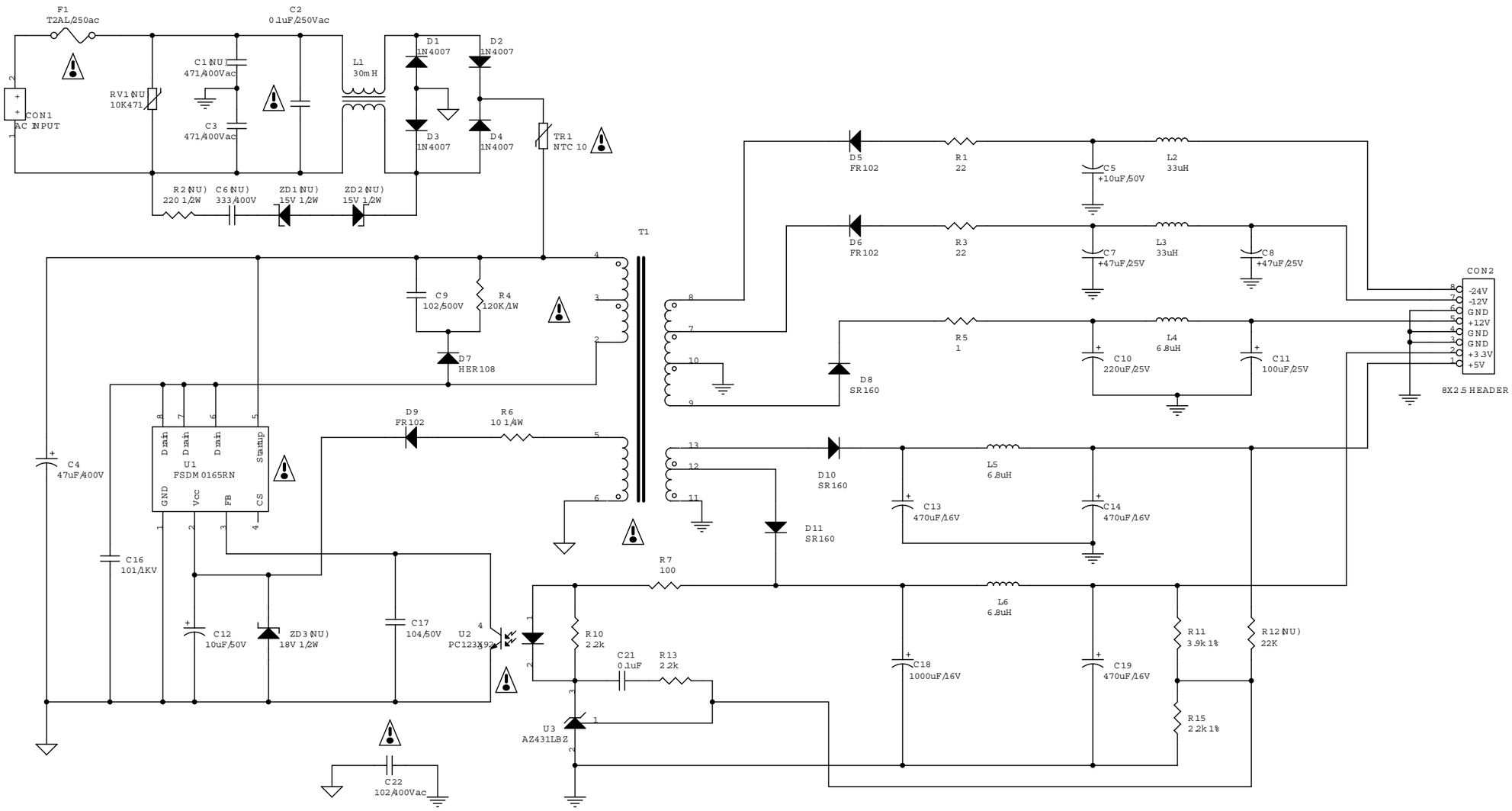


Switch Board Bottom Side



7-2

Powersupply for DVP3XXX/XX



C1	A1
C2	A1
C3	A1
C4	B1
C5	A4
C6	A1
C7	B4
C8	B4
C9	B2
C10	B4
C11	B4
C12	C1
C13	B3
C14	B4
C16	C1
C17	C2
C18	C3
C19	C4
C22	C2
C21	C2
CON1	A1
CON2	B5
D1	A2
D2	A2
D3	A2
D4	A2
D5	A3
D6	B3
D7	B2
D8	B3
D9	B2
D10	B3
D11	C3
F1	A1
L1	A2
L2	A4
L3	B4
L4	B4
L5	B3
L6	C3
R1	A3
R2	A1
R3	B3
R4	B2
R5	B3
R6	B2
R7	C2
R10	C2
R11	C4
R12	C4
R13	C2
R15	C4
R17	C2
RV1	A1
T1	B2
TR1	A2
U1	B1
U2	C2
U3	C2
ZD1	A1
ZD2	A2
ZD3	C1

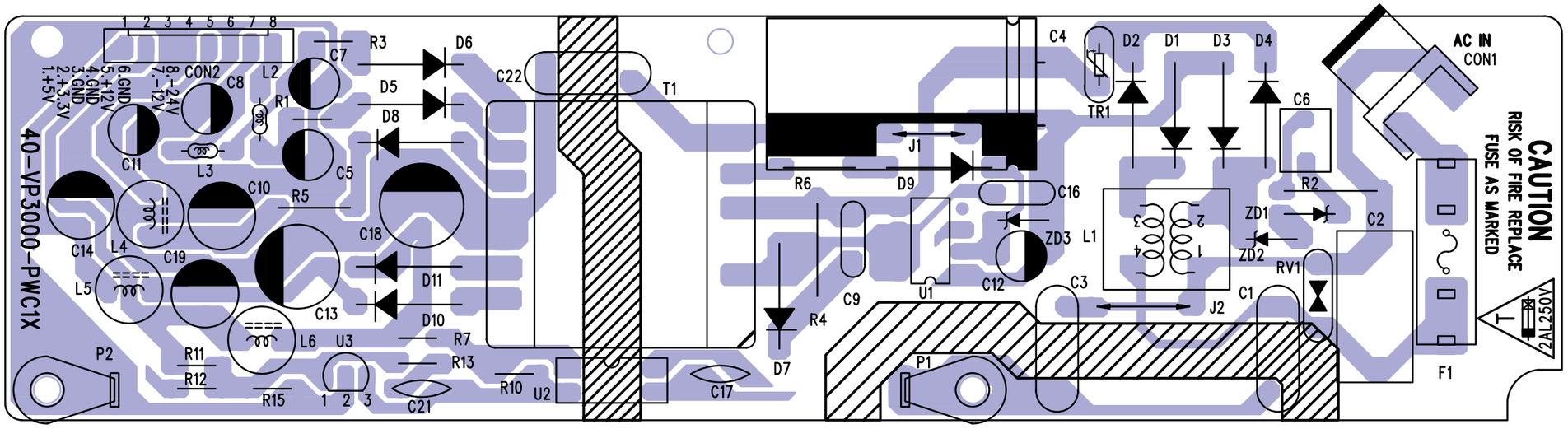
*CAUTION :

THE PARTS MARKED WITH ⚠ ARE IMPORTANT PARTS ON THE SAFETY.

PLEASE USE THE PARTS HAVING THE DESIGNATED PARTS NUMBER WITHOUT FAIL.

7-3

PowerBoard Top Side



8-2

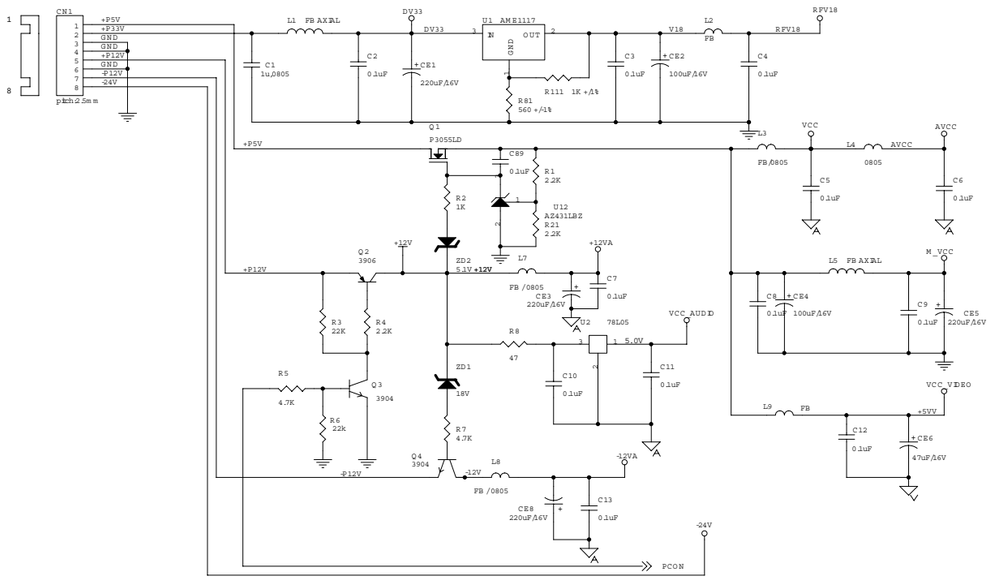
1, INDEX & POWER

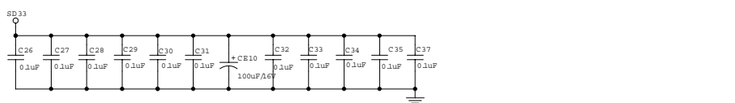
for DVP3000/XX, DVP3000K/XX, DVP3005/XX, DVP3005K/XX, DVP3007/XX, DVP301X/XX

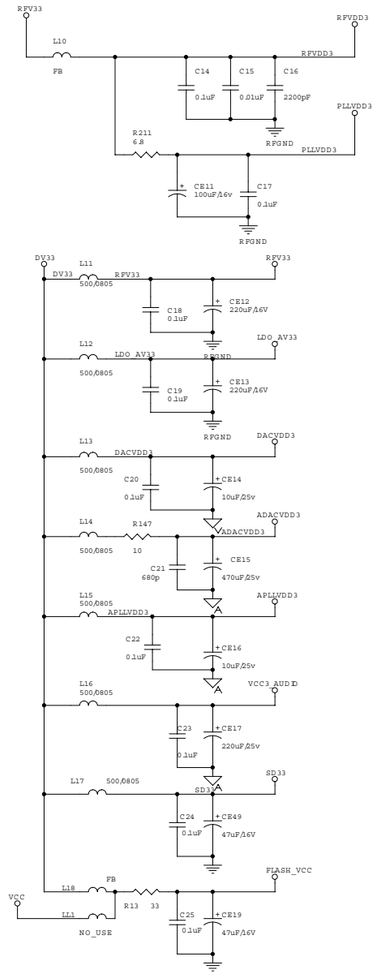
1 INDEX & POWER
2 RF, SERVO & MPEG - MT1389D
3 MEMORY /VIDEO OUT
4 AUDIO OUT

NAME	TYPE	DEVICE
VCC	Digital 5V	SUPPLY
DV33	Digital 3.3V	MT1389D
RFV33	Servo 3.3V	MT1389D
LDO_AV33	Laser Diode 3.3V	
AVCC	RF 5V	PICKUP HEADER
V18	Digital 1.8V	MT1389D
SD33	Digital 3.3V	SDRAM
+12V	Audio +12V	OP AMP.
-12V	Audio -12V	OP AMP.
AVDD	Audio 5V	VCC_AUDIO
DVDD	Audio 3V3	VCC3_AUDIO

TO POWER BOARD



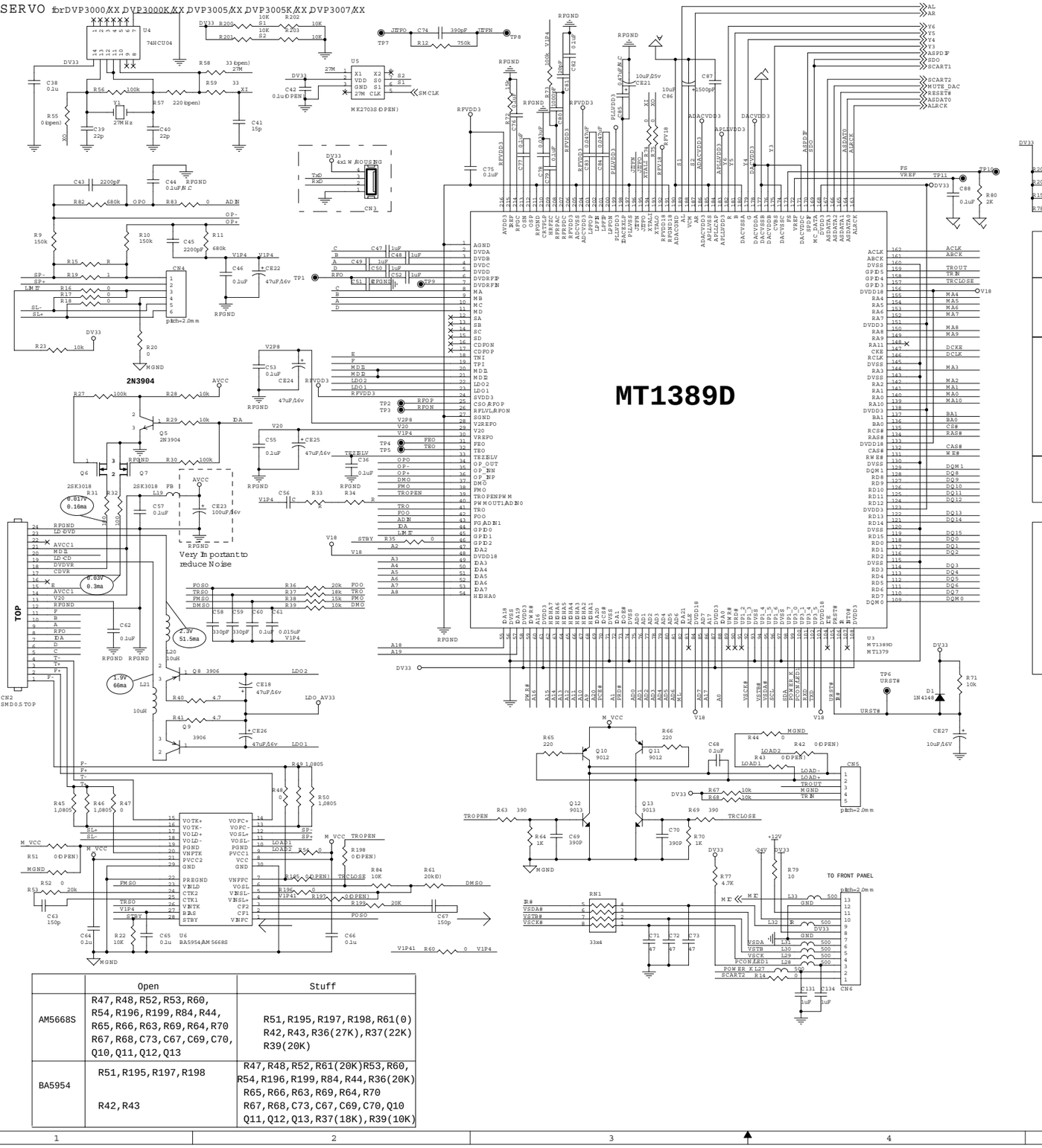




C1	C2	CE1	C2
C2	C2	CE2	C3
C3	C3	CE3	D2
C4	C3	CE4	D3
C5	D3	CE5	D3
C6	D4	CE6	E3
C7	D3	CE8	E2
C8	D3	CE10	F2
C9	D3	CE11	C4
C10	D3	CE12	C5
C11	D3	CE13	C5
C12	E3	CE14	D5
C13	E3	CE15	D5
C14	B4	CE16	D5
C15	B5	CE17	E5
C16	B5	CE49	E5
C17	B5	CN1	C1
C18	C4		
C19	E5	R1	D2
C19	C4	R2	D2
C20	D4	R3	D2
C21	D4	R4	D2
C21	D5	R5	D2
C22	D4	R6	E2
C23	D5	R7	E2
C24	E5	R8	D2
C25	E5	R13	E4
C26	F2	R21	D2
C27	F2	R81	C2
C28	F2	R111	C2
C29	F2	R147	D4
C30	F2	R211	B4
C31	F2	Q1	C2
C32	F2	Q2	D2
C33	F2	Q3	D2
C34	F2	Q4	E2
C35	F3	U1	C2
C37	F3	U2	D3
C89	D2	U12	D2
L1	C2		
L2	C3	ZD1	D2
L3	D3	ZD2	D2
L4	D3		
L5	D3		
L7	D2		
L8	E2		
L9	E3		
L10	B4		
L11	C4		
L12	C4		
L13	C4		
L14	D4		
L15	D4		
L16	D4		
L17	E4		
L18	E4		

8-3

2,MPEG & SERVO for DVP3000/XX,DVP3000K/XX,DVP3005/XX,DVP3005K/XX,DVP3007/XX



TYPE	R209	R210	R205	R208
DVP3005K/69	NC	10K	NC	10K
DVP3005K/75	NC	10K	10K	NC
DVP3005K/03	10K	NC	NC	10K
DVP3005K/13	10K	NC	10K	NC

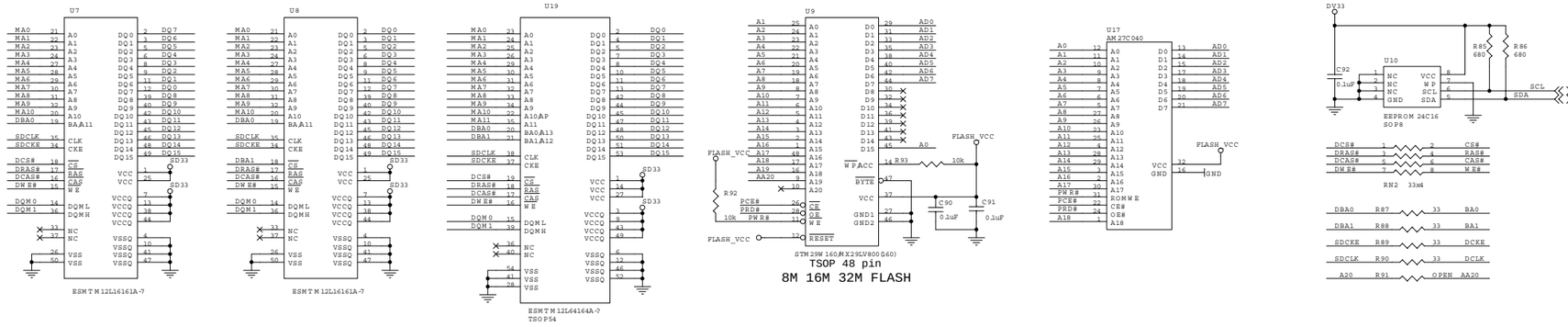
	Open	Stuff
AM5668S	R47,R48,R52,R53,R60, R54,R196,R199,R84,R44, R65,R66,R63,R69,R64,R70 R67,R68,C73,C67,C69,C70, Q10,Q11,Q12,Q13	R51,R195,R197,R198,R61(0) R42,R43,R36(27K),R37(22K) R39(20K)
BA5954	R51,R195,R197,R198 R42,R43	R47,R48,R52,R61(20K)R53,R60, R54,R196,R199,R84,R44,R36(20K) R65,R66,R63,R69,R64,R70 R67,R68,C73,C67,C69,C70,Q10 Q11,Q12,Q13,R37(18K),R39(10K)

C36	C2	R33	C2	L20	D1
C38	A1	R34	C2	L21	D1
C39	A1	R35	C2	L27	E4
C40	A1	R36	D2	L28	E4
C41	A2	R37	D2	L29	E4
C42	A2	R38	D2	L30	E4
C43	B1	R39	D2	L31	E4
C44	B1	R40	D2	L32	E4
C45	B1	R41	D2	L33	E4
C46	B2	R42	E4		
C47	B2	R43	E4	U3	C3
C48	B2	R44	E4	U4	A1
C49	B2	R45	E1	U5	A2
C50	B2	R46	E1	U6	E2
C51	B2	R47	E1	Y1	A1
C52	B2	R48	E2	Q5	C1
C53	B2	R49	E2	Q6	C1
C55	C2	R50	E2	Q7	C1
C56	C2	R51	E1	Q8	D1
C57	C1	R52	E1	Q9	D1
C58	D1	R53	E1	Q10	D3
C59	D2	R54	E2	Q11	D3
C60	D2	R55	A1	Q12	E3
C61	D2	R56	A1	Q13	E3
C62	D1	R57	A1		
C63	E1	R58	A2		
C64	E1	R59	A2		
C65	E1	R60	E2		
C66	E2	R61	E2		
C67	E2	R63	E3		
C68	E3	R64	E3		
C69	E3	R65	E3		
C70	E3	R66	E3		
C71	E3	R67	E3		
C72	E3	R68	E3		
C73	E3	R69	E3		
C74	A2	R70	E3		
C75	A2	R71	D4		
C76	A3	R72	A3		
C77	A3	R73	A3		
C78	A3	R74	A3		
C79	A3	R75	A3		
C80	A3	R77	E4		
C81	A3	R78	B5		
C82	A3	R79	E4		
C83	A3	R80	B4		
C84	A3	R82	B1		
C85	A3	R83	B1		
C86	A3	R209	B5		
C87	A3	R210	B5		
C88	B4	R205	B5		
C131	F4	R208	B5		
C134	F4	R149	B5		
CN2	D2	R158	B5		
CN3	B2	R160	B5		
CN4	B1	R195	E2		
CN5	E4	R196	E2		
CN6	E4	R197	E2		
CE21	A3	R198	E2		
CE23	C2	R199	E2		
CE24	C2	R200	A2		
CE25	C2	RN1	E3		
CE26	D2				
CE18	D2				
R9	B1				
R10	B1				
R11	B2				
R12	A2				
R14	F4				
R15	B1				
R17	B1				
R18	B1				
R19	B1				
R20	B1				
R22	E1				
R27	C1				
R28	C1				
R29	C1				
R30	C1				
R31	C1				
R32	C1				
D1	D4				

8-4

3,SDRAM ,FLASH ,VIDE FILTER & SCART OUT PUT

for DVP3000/XX ,DVP3000K/XX ,DVP3005/XX ,DVP3005K/XX ,DVP3007/XX



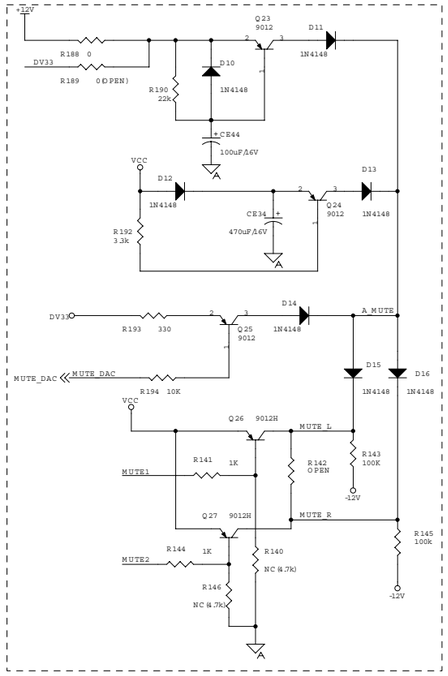
SCART1	SCART2	SCART8	SCART16
1	**0**	12V (9.5V -12V 4:3)	**3V (RGB)**
1	1	6V (5V -8V 16:9)	**3V (RGB)**
0	**0**	0V TV MODE	**0V (CVBS)**

C92	A5	R85	A5
C93	C2	R86	A5
C94	C1	R87	B5
C99	E2	R88	B5
C100	E2	R89	B5
C101	E2	R90	B5
C102	F2	R91	B5
C103	F1	R92	B3
C104	F1	R93	A3
C105	D3	R94	B2
C106	D3	R95	C1
C109	E3	R96	C1
C110	E3	R97	C1
C107	E3	R98	C1
C108	E3	R99	C2
C111	F3	R100	C2
C112	F3	R104	D1
C125	C4	R105	D1
C126	C4	R106	D1
C127	C5	R108	D3
C128	C5	R110	E4
CE28	C1	R112	E4
CE29	C2	R113	D4
CN7	E1	R114	E5
CN8	C5	R115	D4
Q14	B1	R116	E3
Q16	C1	R118	E5
Q17	D1	R119	D4
Q19	C1	R120	D4
Q20	C1	R121	E5
D2	C5	R122	E5
D3	C5	R123	E3
D4	C5	R125	E5
D5	C5	R126	E5
D6	C5	R127	E5
D7	C5	R128	E5
D8	C4	R129	C1
D9	C4	R130	F3
D17	E2	R132	C1
D18	E2	RN2	A5
D19	E2	U7	A1
D20	E2	U8	A2
D21	E2	U9	A3
D22	F2	U10	A5
D23	E2	U12	E4
L22	D3	U17	A4
L23	D3	U19	A2
L24	E3		
L25	F3		

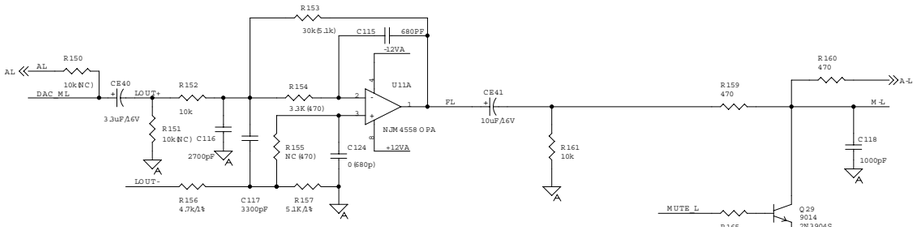
8-5

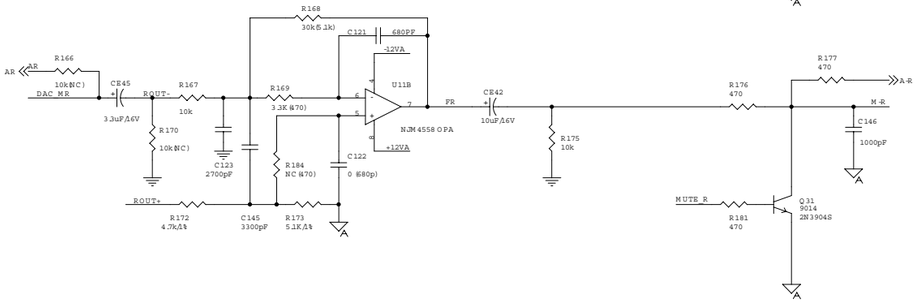
4, AUDIO FILTER & OUTPUT

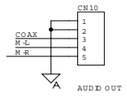
for DVP3000/XX, DVP3000K/XX, DVP3005/XX, DVP3005K/XX, DVP3007/XX

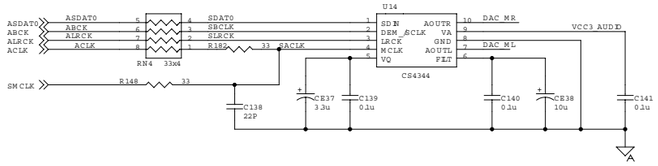


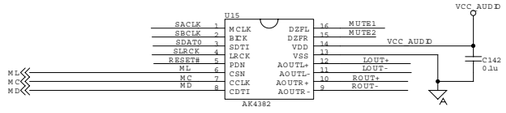
mute circuit

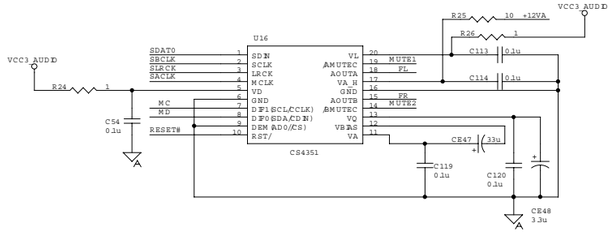


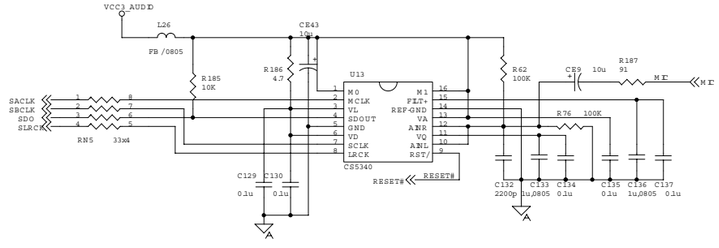


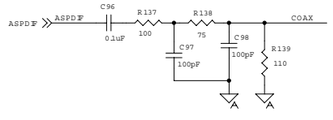












R24	D1	C54	D1
R25	D2	C96	D3
R26	D2	C97	D4
R62	D4	C98	D4
R76	D4	C113	D2
R137	D3	C114	D2
R138	D4	C115	A3
R139	D4	C116	A3
R140	B1	C117	A3
R141	B1	C118	A4
R142	B1	C119	D2
R143	B2	C120	D2
R144	B1	C121	B3
R145	B2	C123	B3
R148	C1	C122	B3
R150	A2	C124	A3
R151	A2	C129	D3
R152	A3	C130	D4
R153	A3	C132	D4
R154	A3	C133	D4
R155	A3	C134	D4
R156	A3	C135	D4
R157	A3	C136	D4
R159	A4	C137	D5
R160	A4	C138	C1
R161	A4	C139	C1
R165	A4	C140	C2
R166	B2	C141	C2
R167	B3	C142	D2
R168	B3	C145	B3
R169	B3	C146	B4
R170	B3		
R172	B2	CE9	C4
R173	B3	CE37	C1
R175	B4	CE38	C2
R176	B4	CE40	A2
R177	B4	CE41	A3
R181	B4	CE43	C4
R184	B3	CE42	B3
R185	C3	CE45	B2
R186	C4	CE47	D2
R187	D4	CE48	D2
R188	A1	CN10	B5
R189	A1		
R190	A1	Q23	A1
R192	A1	Q24	A2
R193	B1	Q25	B1
R194	B1	Q26	B1
RN5	D3	Q27	B1
RN4	C1	Q29	B4
		Q31	B4
D10	A1		
D11	A2	L26	C3
D12	A1	U11	A3
D13	A2	U13	D4
D14	A1	U14	C2
D15	B2	U15	C1
D16	B2	U16	D1

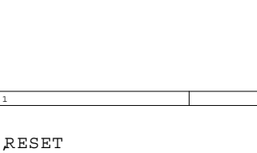
8-6

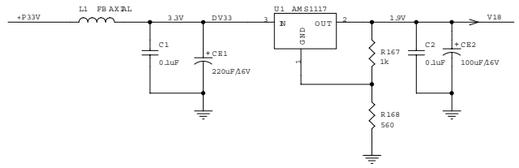
1、INDEX & POWER,RESET

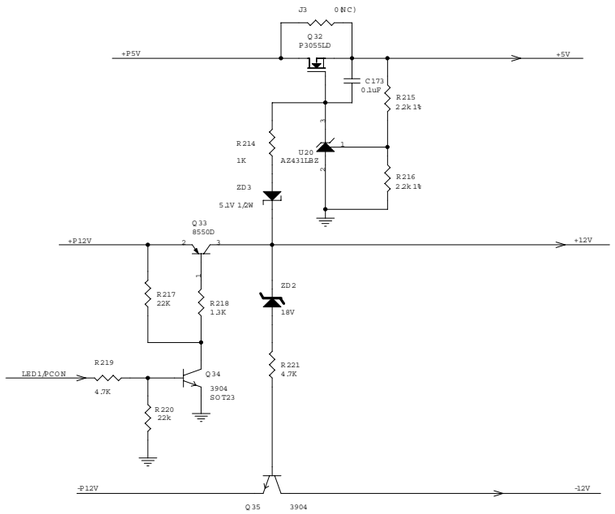
ForDVP301X/XX

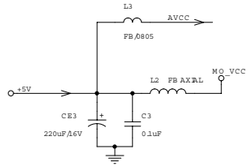
1 INDEX & POWER, RESET
2 RF, SERVO & MPEG - MT1389C&MT1389EE
3 MEMORY - SDRAM, FLASH/EEPROM,VIDEO OUT
4 AUDIO DAC & AUDIO OUT
5 FRONT BOARD
6 POWER SUPPLY

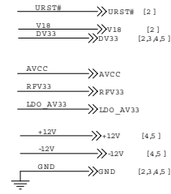
NAME	TYPE	DEVICE
VCC	Digital 5V	SUPPLY
DV33	Digital 3.3V	MT1389E
RFV33	Servo 3.3V	MT1389E
AVCC	RF 5V	PICKUP HEADER
V18	Digital 1.8V	MT1389E
+12V	Audio +12V	OP AMP.
-12V	Audio -12V	OP AMP.
+5V	Servo 5V	Motor drive
-24V	VFD	VFD Drive

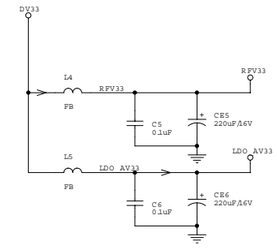


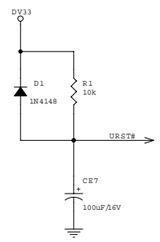






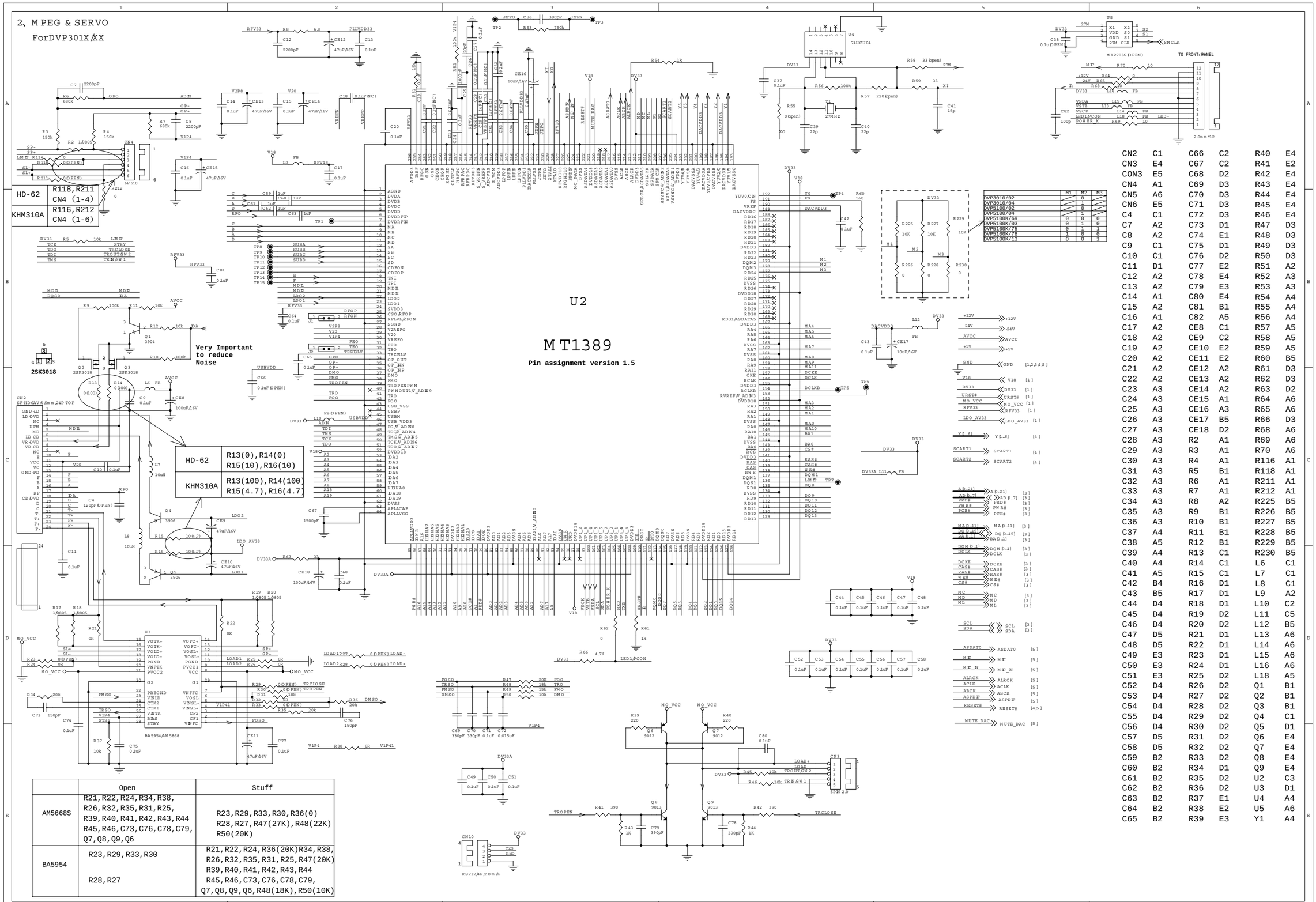






CN1	D1
R1	E5
R167	C3
R168	C3
R169	D3
R214	D3
R215	D3
R216	D3
R217	E3
R218	E3
R219	E2
R220	E3
R221	E3
ZD2	E3
ZD3	E3
D1	E5
C1	C3
C2	C4
C3	E1
C5	D5
C6	D5
C152	C2
C173	D3
CE1	C3
CE2	C4
CE3	E1
CE5	C5
CE6	D5
CE7	E5
L1	C3
L2	E1
L3	E1
L4	C5
L5	D5
Q32	D3
Q33	E3
Q34	E3
Q35	F3
U1	C3
U20	D3

8-7



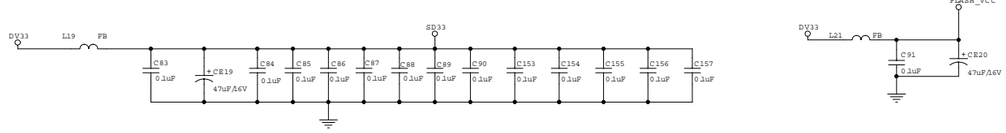
	Open	Stuff
AM5668S	R21,R22,R24,R34,R38, R26,R32,R35,R31,R25, R39,R40,R41,R42,R43,R44 R45,R46,C73,C76,C78,C79, Q7,Q8,Q9,Q6	R23,R29,R33,R30,R36(0) R28,R27,R47(27K),R48(22K) R50(20K)
BA5954	R23,R29,R33,R30 R28,R27	R21,R22,R24,R36(20K)R34,R38, R26,R32,R35,R31,R25,R47(20K) R39,R40,R41,R42,R43,R44 R45,R46,C73,C76,C78,C79, Q7,Q8,Q9,Q6,R48(18K),R50(10K)

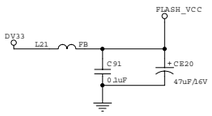
CN2	C1	C66	C2	R40	E4
CN3	E4	C67	C2	R41	E2
CON3	E5	C68	D2	R42	E4
CN4	A1	C69	D3	R43	E4
CN5	A6	C70	D3	R44	E4
CN6	E5	C71	D3	R45	E4
C4	C1	C72	D3	R46	E4
C7	A2	C73	D1	R47	D3
C8	A2	C74	E1	R48	D3
C9	C1	C75	D1	R49	D3
C10	C1	C76	D2	R50	D3
C11	D1	C77	E2	R51	A2
C12	A2	C78	E4	R52	A3
C13	A2	C79	E3	R53	A3
C14	A1	C80	E4	R54	A4
C15	A2	C81	B1	R55	A4
C16	A1	C82	A5	R56	A4
C17	A2	CE8	C1	R57	A5
C18	A2	CE9	C2	R58	A5
C19	A2	CE10	E2	R59	A5
C20	A2	CE11	E2	R60	B5
C21	A2	CE12	A2	R61	D3
C22	A2	CE13	A2	R62	D3
C23	A3	CE14	A2	R63	D2
C24	A3	CE15	A1	R64	A6
C25	A3	CE16	A3	R65	A6
C26	A3	CE17	B5	R66	D3
C27	A3	CE18	D2	R68	A6
C28	A3	R2	A1	R69	A6
C29	A3	R3	A1	R70	A6
C30	A3	R4	A1	R116	A1
C31	A3	R5	B1	R118	A1
C32	A3	R6	A1	R211	A1
C33	A3	R7	A1	R212	A1
C34	A3	R8	A2	R225	B5
C35	A3	R9	B1	R226	B5
C36	A3	R10	B1	R227	B5
C37	A4	R11	B1	R228	B5
C38	A5	R12	B1	R229	B5
C39	A4	R13	C1	R230	B5
C40	A4	R14	C1	L6	C1
C41	A5	R15	C1	L7	C1
C42	B4	R16	D1	L8	C1
C43	B5	R17	D1	L9	A2
C44	D4	R18	D1	L10	C2
C45	D4	R19	D2	L11	C5
C46	D4	R20	D2	L12	B5
C47	D5	R21	D1	L13	A6
C48	D5	R22	D1	L14	A6
C49	E3	R23	D1	L15	A6
C50	E3	R24	D1	L16	A6
C51	E3	R25	D2	L18	A5
C52	D4	R26	D2	Q1	B1
C53	D4	R27	D2	Q2	B1
C54	D4	R28	D2	Q3	B1
C55	D4	R29	D2	Q4	C1
C56	D4	R30	D2	Q5	D1
C57	D5	R31	D2	Q6	E4
C58	D5	R32	D2	Q7	E4
C59	B2	R33	D2	Q8	E4
C60	B2	R34	D1	Q9	E4
C61	B2	R35	D2	U2	C3
C62	B2	R36	D2	U3	D1
C63	B2	R37	E1	U4	A4
C64	B2	R38	E2	U5	A6
C65	B2	R39	E3	Y1	A4

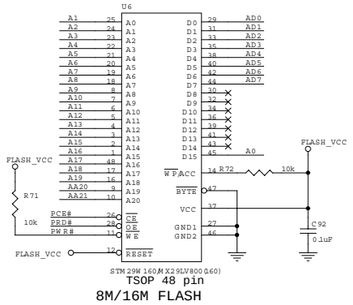
8-8

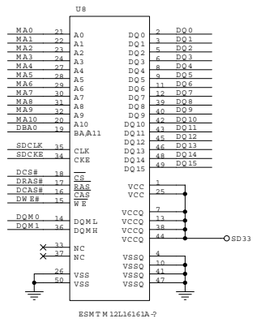
3、SDRAM、FLASH、VIDEO FILTER & SCART OUTPUT

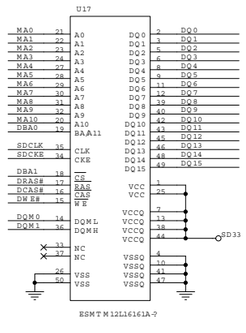
For DVP301X/XX

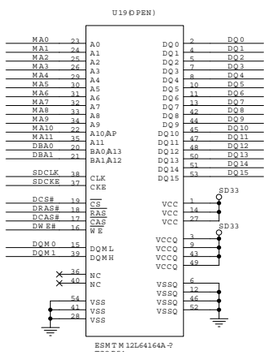


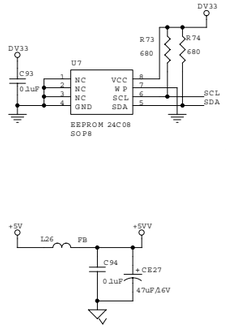


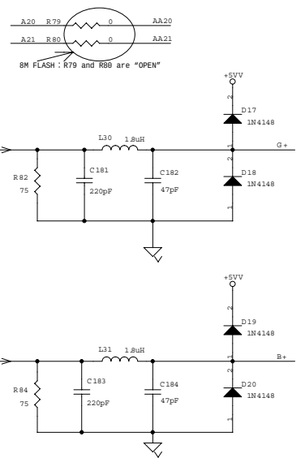




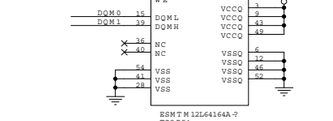


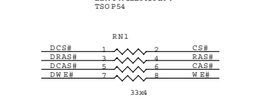


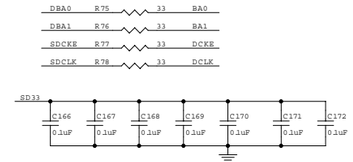


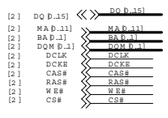


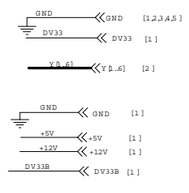
	Open	Stuff
DVP3010(5100) /00/02/04/05	R86,R106,D4,D5	CE22,R90,R94,R98 R102,R88,Q11, R83(82),R89(82)
DVP5100K/69/03 /13/75/78/BK	CE22,R90,R94,R98 R102,R88,Q11, R83(82),R89(82)	R106,R83(75),D4,D5

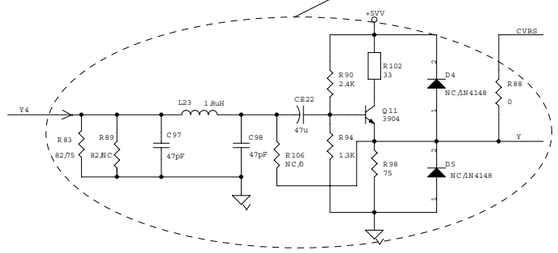


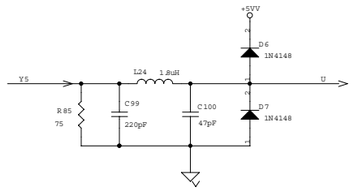


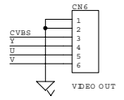


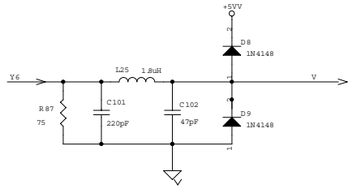


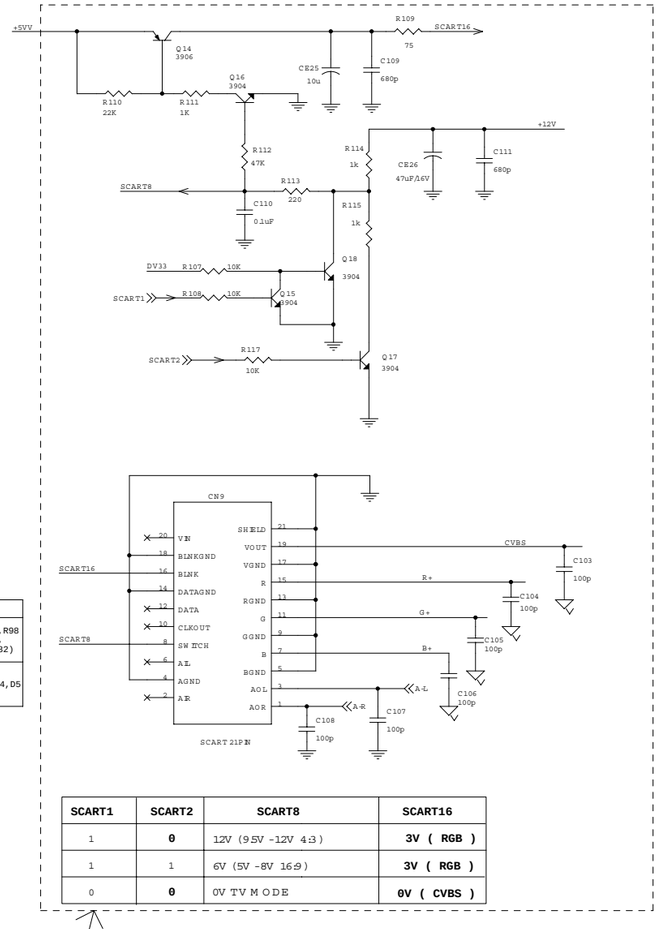












SCART1	SCART2	SCART8	SCART16
1	**0**	12V (9.5V ~12V 4:3)	**3V (RGB)**
1	1	6V (5V ~8V 16:9)	**3V (RGB)**
0	**0**	0V TV MODE	**0V (CVBS)**

When have no SCART, this inside of circle a piece is"OPEN"

C83	A1	D2	D3
C84	A1	D3	D3
C85	A2	D4	E3
C86	A2	D5	E3
C87	A2	D6	A5
C88	A2	D7	A5
C89	A2	D8	B5
C90	A2	D9	B5
C91	A3	D17	C3
C92	B2	D18	C3
C93	C2	D19	D3
C94	C2	D20	D3
C95	D3	Q11	E3
C96	D3	Q14	B4
C97	E3	Q15	C5
C98	E3	Q16	C5
C99	A4	Q17	C5
C100	A4	Q18	C5
C101	A4	R71	B1
C102	A4	R72	B2
C103	D5	R73	C3
C104	D5	R74	C3
C105	D5	R75	D1
C106	D5	R76	D1
C107	E5	R77	D1
C108	E5	R78	D1
C109	C5	R79	B3
C110	C5	R80	B3
C111	C5	R81	D2
C153	A2	R82	C2
C154	A2	R83	E2
C155	A2	R84	D2
C156	A2	R85	A4
C157	A3	R87	B4
C166	D1	R89	E2
C167	D1	R90	E3
C168	D1	R94	C3
C169	D1	R98	E3
C170	D1	R102	E3
C171	D2	R109	C5
C172	D2	R110	C4
C181	C3	R111	C4
C182	C3	R112	C5
C183	D3	R113	C5
C184	D3	R114	C5
CE19	A1	R115	C5
CE20	A3	R117	C4
CE22	E3	RN1	D1
CE25	C5	CN6	A5
CE26	C5	CN7	D5
CE27	C2	U6	A1
L19	A1	U7	C2
L20	A3	U8	B2
L21	A3	U17	B3
L22	D2	U19	C1
L23	E2		
L24	A4		
L25	B4		
L26	C2		
L30	C3		
L31	D3		

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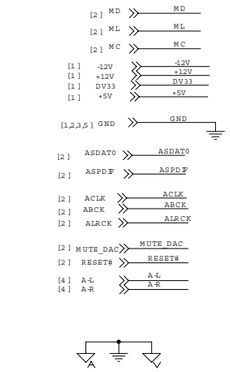
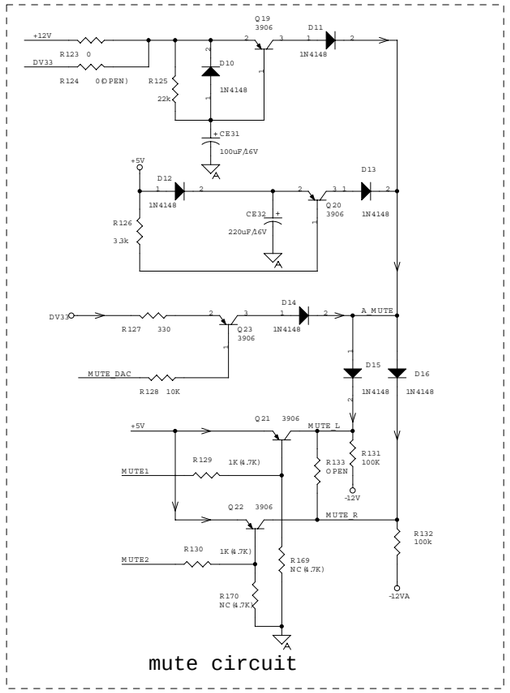
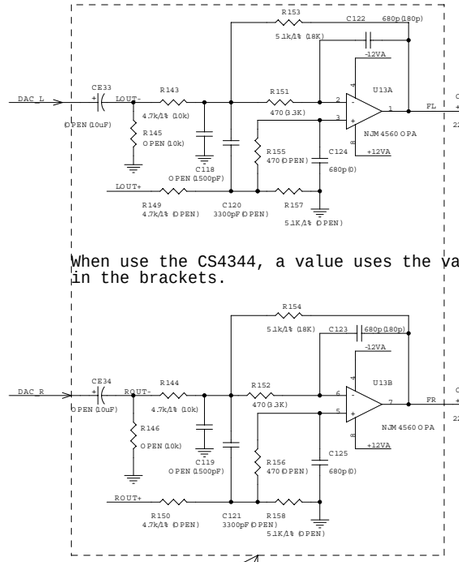
4、AUDIO FILTER & OUTPUT

For DVP301X/XX



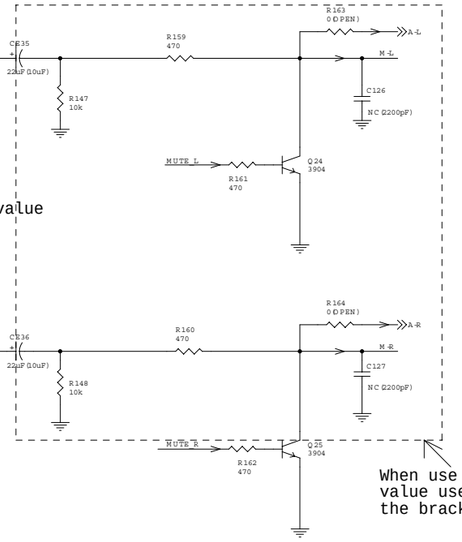


mute circuit

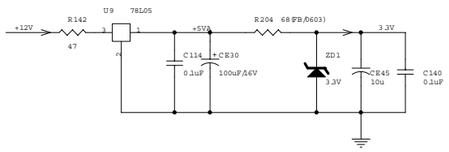


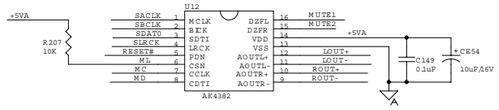
When use the CS4344, a value uses the value in the brackets.

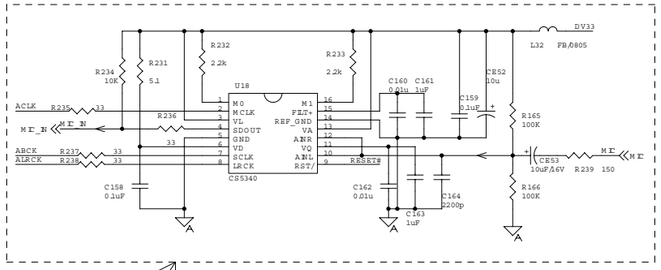
When use the cs4351, this inside of circle a piece is“OPEN”



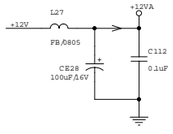
When use the CS4351, a value uses the value in the brackets.

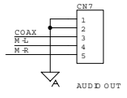


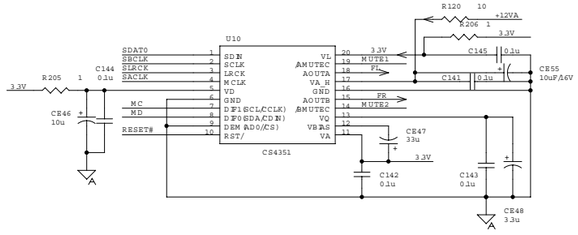


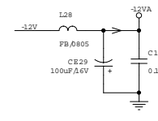


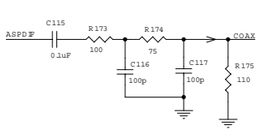
When have no karaoke, this inside of circle a piece is“OPEN”

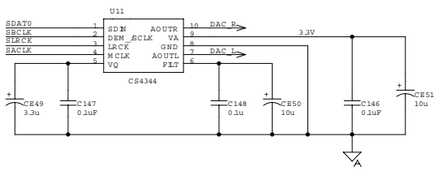












R120	D3	R205	D2	L31	C1
R123	A2	R206	D3	L32	C5
R124	A2	R207	C2	CE28	D1
R125	A2	R231	C4	CE29	E1
R126	A2	R232	C4	CE30	C1
R127	B2	R233	C4	CE31	A3
R128	B2	R234	C4	CE32	A3
R129	B2	R235	C4	CE33	A4
R130	B2	R236	C4	CE34	B4
R131	B3	R237	C4	CE35	A5
R132	B3	R238	C4	CE36	B4
R133	B3	R239	C5	CE46	D2
R134	C1	C112	D1	CE47	D3
R135	C1	C113	E1	CE48	D3

R136	C1	C114	D1	CE49	E2
R137	C1	C115	E1	CE50	E3
R138	C1	C116	E2	CE51	E3
R139	C1	C117	E2	CE52	C5
R142	C1	C118	A4	CE53	C5
R143	A4	C119	B4	CE54	C3
R144	B4	C120	A4	CE55	D3
R145	A4	C121	B4	Q19	A3
R146	B4	C122	A4	Q20	A3
R147	A5	C123	B4	Q21	B3
R148	B5	C124	A4	Q22	B3
R149	A4	C125	B4	Q23	B3
R150	B4	C126	A6	Q24	A5
R151	A4	C127	B6	Q25	B5
R152	B4	C140	D2	D10	A3
R153	A4	C141	D3	D11	A3
R154	B4	C142	D3	D12	A2
R155	A4	C143	D3	D13	A3
R156	B4	C144	D2	D14	B3
R157	A4	C145	D3	D15	B3
R158	B4	C146	E3	D16	B3
R159	A5	C147	E3	U18	C4
R160	B5	C148	E3	U9	C1
R161	A5	C149	C3	U10	D3
R162	B5	C158	D4	U11	E3
R163	A6	C159	C5	U12	C3
R164	B6	C160	C5	U13	A4
R165	C5	C161	C5	CN7	D2
R166	D5	C162	C5		
R169	B3	C163	C5		
R170	C3	C164	C5		
R173	E1	L27	D1		
R174	E2	L28	E1		
R175	E2	L30	C1		

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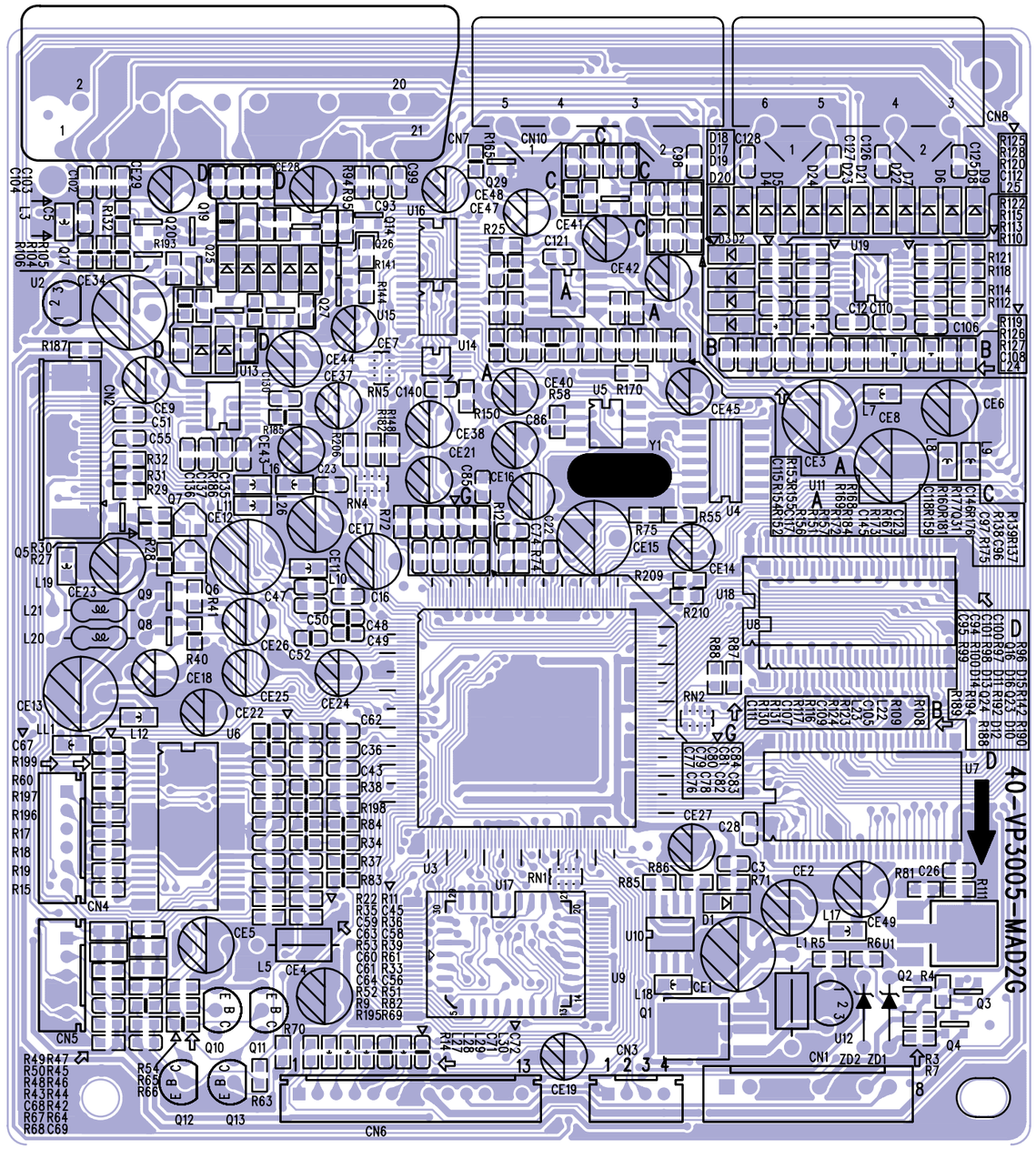
Mpeg Board Top Side



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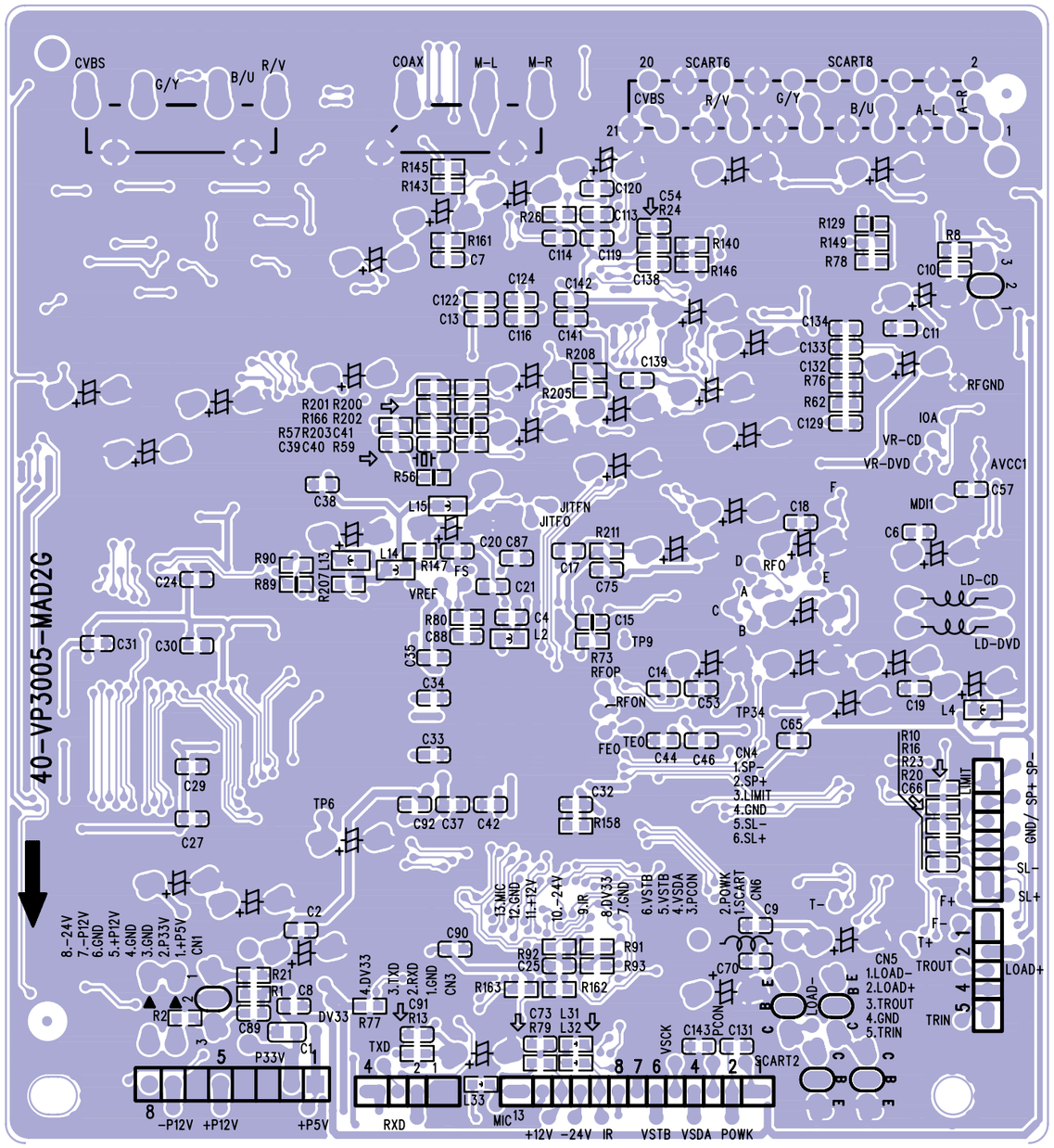
Mpeg Board Bottom Side



Mechanical Exploded view